

ORIGINAL

NEW APPLICATION



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LIBERTY UTILITIES
Todd C. Wiley (No. 015358)
12725 W. Indian School Road, Suite D-101
Avondale, Arizona 85392

Attorneys for Liberty Utilities (Entrada Del Oro Sewer) Corp.

BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE APPLICATION
OF LIBERTY UTILITIES (ENTRADA DEL
ORO SEWER) CORP., AN ARIZONA
CORPORATION, FOR A
DETERMINATION OF THE FAIR VALUE
OF ITS UTILITY PLANTS AND
PROPERTY AND FOR INCREASES IN ITS
WASTEWATER RATES AND CHARGES
FOR UTILITY SERVICE BASED
THEREON.

DOCKET NO: SW-04316A-16-0078

Arizona Corporation Commission
APPLICATION DOCKETED

MAR 03 2016

DOCKETED BY

[Signature]

Liberty Utilities (Entrada Del Oro Sewer) Corp., an Arizona public service corporation ("Liberty EDO" or "Company"), formerly known as Entrada Del Oro Sewer Company, Inc., hereby applies for an order establishing the fair value of its plant and property used for the provision of public wastewater utility service and, based on such finding, approving permanent rates and charges for utility service designed to produce a fair return thereon. In support thereof, Liberty EDO states as follows:

1. Liberty EDO is an Arizona public service corporation engaged in providing wastewater utility services in portions of Pinal County, Arizona, pursuant to certificates of convenience and necessity granted by the Arizona Corporation Commission. During the test year, Liberty EDO served approximately 336 customers.

1 2. Liberty EDO's business office is located at 12725 W. Indian School Road,
2 Suite D-101, Avondale, Arizona 85392 and its telephone number is (623) 935-9367.
3 The primary management contact is Matthew Garlick. Mr. Garlick is employed by
4 Liberty Utilities ("Liberty") as President – AZ/TX.

5 3. The person responsible for overseeing and directing the conduct of this rate
6 application is Mr. Garlick, who was assisted by Liberty EDO's rate case consultant,
7 Thomas Bourassa, and undersigned legal counsel. Mr. Garlick's mailing address is 12725
8 W. Indian School Road, Suite D-101, Avondale, Arizona 85392; his telephone number is
9 (623) 298-3763; and his e-mail address is Matthew.Garlick@libertyutilities.com.
10 Mr. Bourassa's mailing address is 139 W. Wood Drive, Phoenix, Arizona 85029; his
11 telephone number is (602) 246-7150; and his e-mail address is tjb114@cox.net.
12 **All discovery, data requests and other requests for information concerning this**
13 **Application should be directed to Mr. Garlick, including copies by e-mail, as well as**
14 **to Mr. Bourassa, with a copy to undersigned counsel, including by e-mail to**
15 **jay@shapslawaz.com and whitney@shapslawaz.com, and to Liberty's Assistant**
16 **General Counsel at Todd.Wiley@libertyutilities.com.**

17 4. Liberty EDO's present rates and charges for utility services were approved
18 by the Commission in Decision No. 68306 (November 14, 2005). There have been no
19 other changes to the Company's rates since the current rates went into effect on or after
20 July 25, 2006.

21 5. The Company's revenues from its utility operations are presently inadequate
22 to provide a fair rate of return on the fair value of its utility plant and property devoted to
23 public service. Operating expenses have caused the revenues produced by the current
24 rates and charges for service to become inadequate to meet operating expenses and
25 provide a reasonable rate of return. Therefore, the Company requests that the
26 Commission approve certain adjustments to its rates and charges for utility service so that

1 the Company may recover its operating expenses and have a reasonable opportunity to
2 earn a just and reasonable rate of return on the fair value of its property. The Company
3 agrees to use its original cost rate base as its fair value rate base in this proceeding to
4 minimize disputes and reduce rate case expense.

5 6. Filed concurrently herewith are the schedules required pursuant to A.A.C.
6 R14-2-103. The test year utilized by Liberty EDO in connection with the preparation of
7 such schedules is the 12-month period that ended October 31, 2015. Liberty EDO
8 requests that the Commission utilize such test year in connection with this Application,
9 with appropriate adjustments to obtain a normal or more realistic relationship between
10 revenues, rate base and expenses during the period in which the rates established in this
11 proceeding are in effect.

12 7. During the test year, Liberty EDO's adjusted gross revenues were \$281,288.
13 The adjusted operating income was \$(25,409), leading to an operating income deficiency
14 of \$174,495. The adjusted fair value rate base was \$2,154,980. Thus, the rate of return
15 during the test year was negative 1.18 percent.

16 8. Liberty EDO submits that these rates of return are inadequate to allow it to
17 obtain debt, pay a reasonable dividend to its stockholder, maintain a sound credit rating,
18 and/or enable the Company to attract additional capital on reasonable and acceptable
19 terms in order to continue the investment in utility plant necessary to adequately serve
20 customers.

21 9. Liberty EDO is seeking an increase in revenues equal to \$254,643, an
22 increase in revenues of 90.53 percent. The adjustments to Liberty EDO's rates and
23 charges that are proposed herein, when fully implemented, will produce a rate of return on
24 the fair value rate base equal to 6.92 percent.

25 10. Filed concurrently in support of this Application is the Direct Testimony of
26 the Company's President Matthew Garlick, providing an overview of Liberty EDO and its

parent, Liberty Utilities Co., and discussing (1) the Purchased Power Adjuster Mechanism (PPAM) and Property Tax Adjuster Mechanism (PTAM) for which the Company is seeking approval, (2) Liberty EDO's proposed rate phase-in, (3) the proposed modifications to the Company's tariff of rates and charges, and (4) the Company's request for financing.

11. Liberty EDO also submits the direct testimony of William Killeen. Mr. Killeen's testimony provides an overview of Liberty Utilities' business model, cost allocation manual, and corporate cost allocation process.

12. Finally, Liberty EDO submits the Direct Testimony of Thomas Bourassa, in two separate volumes that collectively provide an overview of the Company's rate filing, discussion of the revenue requirement, including the "A" through "F" schedules, development of the rate base and income statement adjustments, cost of equity capital and related issues, proposed rates, including the "H" schedules, and discussion of the effects of the proposed rates on customers' bills. The Company's "D" Schedules, which concern the cost of capital, are attached to the volume of Mr. Bourassa's testimony addressing cost of capital. The remaining schedules are separately bound and filed concurrently with the Application.

13. Attached hereto as **Attachment 1** are wastewater plant descriptions, and wastewater flows for January 2014-December 2014.

14. Attached hereto as **Attachment 2** is Liberty EDO's proposed tariff of rates and charges.

15. Attached hereto as **Attachment 3** is Liberty EDO's proposed PPAM.

16. Attached hereto as **Attachment 4** is Liberty EDO's proposed PTAM.

WHEREFORE, Liberty EDO requests the following relief:

A. That the Commission, upon proper notice and at the earliest possible time, conduct a hearing in accordance with A.R.S. § 40-251 and determine the fair value of

1 Liberty EDO's utility plants and property devoted to providing wastewater utility service;

2 B. Based upon such determination, that the Commission approve permanent
3 adjustments to the rates and charges for wastewater utility service provided by Liberty
4 EDO, as proposed herein, or approve such other rates and charges as will produce a just
5 and reasonable rate of return on the fair value of Liberty EDO's utility plant and property;

6 C. That the Commission approve Liberty EDO's request for a PPAM and
7 PTAM; and

8 D. That the Commission authorize such other and further relief as may be
9 appropriate to ensure that Liberty EDO has an opportunity to earn a just and reasonable
10 return on the fair value of their utility plant and property and as may otherwise be required
11 under Arizona law.

12 RESPECTFULLY SUBMITTED this 3rd day of March, 2016.

13 SHAPIRO LAW FIRM, P.C.

14
15 By: _____

Jay L. Shapiro
1819 E. Morten Avenue, Suite 280
Phoenix, AZ 85020

17 and

18 LIBERTY UTILITIES

19 Todd C. Wiley
20 Assistant General Counsel
21 12725 W. Indian School Road, Suite D-101
Avondale, AZ 85392

22
23 Attorneys for Liberty Utilities
(Entrada Del Oro Sewer) Corp.
24
25
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1 ORIGINAL and fifteen (15) copies of the
2 foregoing, together with the direct testimonies
and schedules supporting this application
were delivered this 3rd day of March, 2016, to:

3 Docket Control
4 Arizona Corporation Commission
1200 W. Washington Street
5 Phoenix, AZ 85007

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7 By: Whitney Zink
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ATTACHMENT 1

ENTRADA DEL ORO SEWER COMPANY

Name of System: Entrada Del Oro SC

Wastewater Inventory Number (if applicable):

WASTEWATER UTILITY PLANT DESCRIPTION
TREATMENT FACILITY

TYPE OF TREATMENT (Extended Aeration, Step Aeration, Oxidation Ditch, Aerobic Lagoon, Anaerobic Lagoon, Trickling Filter, Septic Tank, Wetland, Etc.)	Extended Aeration, MLE Process W/ Nitrogen Removal
DESIGN CAPACITY OF PLANT (Gallons Per Day)	300,000 Gallons/Day

LIFT STATION FACILITIES

Location	Quantity of Pumps	Horsepower Per Pump	Capacity Per Pump (GPM)	Wet Well Capacity (gals)
Entrance to Plant	2	7.5 HP	705	1,080

FORCE MAINS

Size	Material	Length (Feet)
4-inch		
6-inch		
8-inch	DIP	70
8-inch	C-900 Purple Effluent	6,000

MANHOLES

Type	Quantity
Standard 4'	54
Drop	7
Standard 5'	9

CLEANOUTS

Quantity
7X2 Way

Note: If you are filing for more than one system, please provide separate sheets for each system.

ENTRADA DEL ORO SEWER COMPANY

Name of System:

Wastewater Inventory Number (if applicable):

WASTEWATER UTILITY PLANT DESCRIPTION (CONTINUED)**COLLECTION MAINS****SERVICES**

Size (in inches)	Material	Length (in feet)
6	ABS Drain Pipe	326
8	SDR 35	12,662
8	Glass lined DIP	1,551
10	SDR35	928
12	SDR35	1,671
12	Glass lined DIP	78

Size (in inches)	Material	Quantity
4	ABS Drain Pipe	302

**FOR THE FOLLOWING FIVE ITEMS, LIST THE UTILITY OWNED ASSETS IN EACH CATEGORY
PER WASTEWATER SYSTEM**

SOLIDS PROCESSING AND HANDLING FACILITIES	Aerobic Sludge Digester, Sludge pumping
DISINFECTION EQUIPMENT (Chlorinator, Ultra-Violet, Etc.)	Ultra-Violet
FILTRATION EQUIPMENT (Rapid Sand, Slow Sand, Activated Carbon, Etc.)	Rotating cloth disk
STRUCTURES (Buildings, Fences, Etc.)	Perimeter Wall, Operations building, Paving , Curbing
OTHER (Laboratory Equipment, Tools, Vehicles, Standby Power Generators, Etc.)	Backup Generator, Hach HQ40d/w ph probe, conductivity probe, and DO probe.

Note: If you are filing for more than one system, please provide separate sheets for each system.

COMPANY NAME ENTRADA DEL ORO SEWER COMPANY	
Name of System: Entrada Del Oro SC	Wastewater Inventory Number (if applicable):

WASTEWATER FLOWS

MONTH/YEAR (Most Recent 12 Months)	NUMBER OF SERVICES	TOTAL MONTHLY SEWAGE FLOW	SEWAGE FLOW ON PEAK DAY
January	336	1,144,000	51,000
February	336	1,105,000	55,000
March	336	1,215,000	54,000
April	336	1,102,000	53,000
May	336	999,000	44,000
June	336	867,000	41,000
July	336	880,000	45,000
August	336	926,000	46,000
September	336	915,000	48,000
October	336	920,000	39,000
November	336	1,034,000	50,000
December	336	1,119,000	77,000

PROVIDE THE FOLLOWING INFORMATION AS APPLICABLE PER WASTEWATER SYSTEM

Method of Effluent Disposal (leach field, surface water discharge, reuse, injection wells, groundwater recharge, evaporation ponds, etc.)	Surface Water Discharge
Groundwater Permit Number	N/A
ADEQ Aquifer Protection Permit Number	P105488
ADEQ Reuse Permit Number	N/A
EPA NPDES Permit Number	AZ0024899

Note: If you are filing for more than one system, please provide separate sheets for each system.

ATTACHMENT 2

DOCKET NO. _____

Cancelling Sheet No. ____

TABLE OF CONTENTS

Part One – Statement of Charges	Sheet No. 1
I. Rates.....	Sheet No. 1
II. Taxes and Assessments.....	Sheet No. 2
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IV. Permitted Costs	Sheet No. 4
Part Two – Statement of Terms and Conditions.....	Sheet No. 5
I. Customer Discharge to System	Sheet No. 5
II. Rules and Regulations.....	Sheet No. 7

Issued: _____

Effective: _____

ISSUED BY:
Matthew Garlick, President
Liberty Utilities (Entrada Del Oro Sewer) Corp.
12725 W. Indian School Road, Suite D-101
Avondale, AZ 85392

DOCKET NO. _____

Cancelling Sheet No. ____

Applies to all WASTEWATER service areas

PART ONE
STATEMENT OF CHARGES

I. RATES

In Decision No. _____, issued _____, 2017, the Commission approved the following rates and charges to become effective _____:

MONTHLY CHARGE

<u>Description</u>	<u>Rate</u>
Residential Service	\$114.61 [1]
School Service – Per Student	\$10.699
Commercial Service	\$140.00 [2]
Commercial – Per 1,000 gallons used	\$6.00 [2]
Effluent (per acre foot / per 1,000 gallons)	Market Price

[1] <u>Proposed Phase-In</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>
Residential Monthly Charge	\$114.61	\$133.74	\$155.48	\$133.74

[2] Based upon actual water usage provided by Arizona Water Company. If water usage data cannot be obtained, then the following flat rate design based upon the following meter size:

<u>Meter Size</u>	<u>Proposed Monthly Charge</u>
1 inch and smaller	\$140.00
1 ½ inch	\$280.00
2 inch	\$448.00
3 inch	\$896.00
4 inch	\$1,400.00
6 inch	\$2,800.00
8 inch	\$4,480.00
10 inch	\$6,440.00

Issued: _____

Effective: _____

ISSUED BY:
 Matthew Garlick, President
 Liberty Utilities (Entrada Del Oro Sewer) Corp.
 12725 W. Indian School Road, Suite D-101
 Avondale, AZ 85392

DOCKET NO. _____

Cancelling Sheet No. ____

Applies to all **WASTEWATER** service areas

PART ONE
STATEMENT OF CHARGES

II. TAXES AND ASSESSMENTS

In addition to all other rates and charges authorized herein, the Company shall collect from its customers all applicable sales, transaction, privilege, regulatory or other taxes and assessments as may apply now or in the future, per Rule R14-2-608(D)(5).

Issued: _____

Effective: _____

ISSUED BY:
Matthew Garlick, President
Liberty Utilities (Entrada Del Oro Sewer) Corp.
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DOCKET NO. _____

Cancelling Sheet No. _____

Applies to all WASTEWATER service areas

PART ONE
STATEMENT OF CHARGES

III. ADDITIONAL CHARGES

A.	Establishment—Regular Hours	\$25.00
B.	Re-Establishment (within 12 months)	(1)
C.	Re-Connection--Delinquent	(2)
D.	After-Hours Service Charge	\$50.00; (3)
E.	Minimum Deposit – Residential	Two times average bill
F.	Minimum Deposit – Non-residential	Two and one-half times average bill
G.	Deposit Interest	6.00%
H.	NSF Check Charge	\$10.00
I.	Deferred Payment Finance Charge	1.50% per month
J.	Late Charge	Greater of \$5.00 or 1.50% per month on unpaid balance
K.	Main Extension Tariff	
	Per A.A.C. R14-2-606(B)	Cost

- (1) Per A.A.C. R14-2-603(D), residential and non-residential customers shall pay applicable minimum charge times number of months disconnected.
- (2) Customer shall pay the actual cost of physical disconnection and Establishment (if same customer) and there shall be no charge for disconnection if no physical work is performed.
- (3) The after-hours service charge shall apply to any service requested by Customer that is performed by Company after regular business hours and shall be in addition to the regular business hours service charge.

Issued: _____

Effective: _____

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Liberty Utilities (Entrada Del Oro Sewer) Corp.
12725 W. Indian School Road, Suite D-101
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DOCKET NO. _____

Cancelling Sheet No. ____

Applies to all **WASTEWATER** service areas

PART ONE
STATEMENT OF CHARGES

I. PERMITTED COSTS

- A. Costs shall be verified by invoice.
- B. For services that are provided by Company at cost, costs shall include labor, materials, other charges incurred, and overhead. However, prior to any such service being provided, the estimated cost of such service will be provided by Company to the customer. After review of the cost estimate, the customer will pay the amount of the estimated cost to Company.
- C. In the event that the actual cost is less than the estimated cost, Company will refund the excess to the customer within 30 days after completion of the provision of the service or after Company's receipt of invoices, timesheets or other related documents, whichever is later.
- D. In the event the actual cost is more than the estimated cost, Company will bill the customer for the amount due within 30 days after completion of the invoices, timesheets or other related documents, whichever is later. The amount so billed will be due and payable 30 days after the invoice date.
- E. At the customer's request, Company shall make available to the customer all invoices, timesheets or related documents that support the cost for providing such service.
- F. Permitted costs shall include any Federal, State or local taxes that are or may be payable by Company as a result of any tariff or contract for wastewater facilities under which the Customer advances or contributes funds or facilities to Company.

Issued: _____

Effective: _____

ISSUED BY:
Matthew Garlick, President
Liberty Utilities (Entrada Del Oro Sewer) Corp.
12725 W. Indian School Road, Suite D-101
Avondale, AZ 85392

DOCKET NO. _____

Cancelling Sheet No. ____

Applies to all WASTEWATER service areas

PART TWO
STATEMENT OF TERMS AND CONDITIONS

I. CUSTOMER DISCHARGE TO SYSTEM**A. Service Subject to Regulation**

Company provides wastewater service using treatment and collection facilities that are regulated by numerous county, state and federal statutes and regulations. Those regulations include limitations as to domestic strength wastewater and the type of wastewater that may be discharged into the system by any person directly or indirectly connected to the plant.

B. Waste Limitations

Company has established the permissible limits of concentration as domestic strength wastewater and will limit concentration for various specific substances, materials, waters, or wastes that can be accepted in the sewer system, and to specify those substances, materials, waters, or wastes that are prohibited from entering the sewer system. Each permissible limit so established shall be placed on file in the business office of Company, with a copy filed with the Commission. No person shall discharge, or cause to be discharged, any new sources of inflow including, but not limited to, storm water, surface water, groundwater, roof runoffs, subsurface drainage, cooling water, or polluted industrial process waters into the sanitary sewer. Company will require an affidavit from all non-residential customers, and their professional engineer, stating that the wastewater discharged to the system does not exceed domestic strength or applicable pre-treatment standards.

Issued: _____

Effective: _____

ISSUED BY:
Matthew Garlick, President
Liberty Utilities (Entrada Del Oro Sewer) Corp.
12725 W. Indian School Road, Suite D-101
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DOCKET NO. _____

Cancelling Sheet No. ____

Applies to all WASTEWATER service areas

PART TWO
STATEMENT OF TERMS AND CONDITIONS

I. CUSTOMER DISCHARGE TO SYSTEM (cont.)**C. Inspection and Right of Entry**

Every facility that is involved directly or indirectly with the discharge of wastewater to the Treatment Plant may be inspected by Company as it deems necessary. These facilities shall include but not be limited to sewer; sewage pumping plants; all processes; devices and connection sewer; and all similar sewerage facilities. Inspections may be made to determine that such facilities are maintained and operated properly and are adequate to meet the provisions of these rules and this tariff. Inspections may include the collection of samples. Authorized personnel of Company shall be provided immediate access to all of the above facilities or to other facilities directly or indirectly connected to the Treatment Plant at all reasonable times including those occasioned by emergency conditions. Any permanent or temporary obstruction to easy access to the user's facility to be inspected shall promptly be removed by the facility user or owner at the written or verbal request of Company and shall not be replaced. No person shall interfere with, delay, resist or refuse entrance to an authorized Company representative attempting to inspect any facility involved directly or indirectly with a discharge of wastewater to the Treatment Plant. Adequate identification shall be provided by Company for all inspectors and other authorized personnel and these persons shall identify themselves when entering any property for inspection purposes or when inspecting the work of any contractor.

All transient motor homes, travel trailers and other units containing holding tanks must arrive at the Company's service area in an empty condition. Inspection will be required of said units prior to their being allowed to hookup to the wastewater system.

Issued: _____

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Liberty Utilities (Entrada Del Oro Sewer) Corp.
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Avondale, AZ 85392

DOCKET NO. _____

Cancelling Sheet No. ____

Applies to all **WASTEWATER** service areas

PART TWO
STATEMENT OF TERMS AND CONDITIONS

II. RULES AND REGULATIONS

The Company has adopted the Rules and Regulations established by the Commission as the basis for its operating procedures. A.A.C. R14-2-601 through A.A.C. R14-2-609 will be controlling of Company procedures, unless specifically approved tariffs or Commission Order(s) provide otherwise.

Issued: _____

Effective: _____

ISSUED BY:
Matthew Garlick, President
Liberty Utilities (Entrada Del Oro Sewer) Corp.
12725 W. Indian School Road, Suite D-101
Avondale, AZ 85392

ATTACHMENT 3

LIBERTY UTILITIES (ENTRADA DEL ORO SEWER) CORP.

**PLAN OF ADMINISTRATION FOR
PURCHASED POWER ADJUSTMENT MECHANISM**

I. GENERAL DESCRIPTION.

This document is the Plan of Administration ("POA") for the Purchased Power Adjustment Mechanism ("PPAM") for Liberty Utilities (Entrada Del Oro Sewer) Corp. ("Liberty EDO" or "Company") approved by the Arizona Corporation Commission ("Commission") in Decision No. _____ on _____, 2017. The PPAM allows Liberty EDO to pass through to its customers the increase or decrease in purchased power costs that result from a rate change for any Commission-regulated electric service provider supplying retail electric service to the Company.

II. PPAM RELATED FILINGS.

A. Within 60 days of the effective date of a Commission Decision authorizing a rate change in the approved tariffs for any Commission-regulated electric service provider supplying retail electric service to the Company, the Company shall file with Docket Control an analysis of the actual impact on the energy portion of the Company's electric service costs.

B. The Company will provide the Commission with spreadsheets detailing exactly how the Company's purchased power expenses were calculated in the time period prior to a change in the rate that the Company must pay for purchased power. These calculations will include basic service charges and rate and volume figures. That is, the Company will break down its total purchased power bill into the amount due to fixed fees, volume of electricity used, and the rates paid per unit of electricity. For the period following the rate change, the Company will provide the same information, then compare the two periods, isolating any change in purchased power cost that is due exclusively to a rate change. The specific intent is to show exactly how much of any increase or decrease is due to changes in rates beyond the Company's control and how much is due to a change in the amount of power that the Company consumes. The Company will only recover increases or refund decreases that are due to changes in rates.

C. All revised schedules filed with the Commission pursuant to the provisions of this PPAM will be accompanied by documentation prepared by the Company in a format approved by Utilities Division Staff of the Commission and will contain sufficient detail to enable the Commission to verify accuracy of the Company's calculations.

D. The surcharges will not become effective until approved by the Commission.

E. The Company will file annually with the Commission a report detailing the Company's purchased power costs and any conservation or power-shifting measures employed by the Company.

F. The Company shall provide notice (in a form acceptable to Staff) of the rate increases to customers with the bill where the rate increase first appears.

III. APPLICATION TO SEWER CUSTOMERS.

A. The increase or decrease in purchased power costs that are due to changes in rates at the Company's sewer facilities will be allocated on a per capita basis.

B. See the following example:

<i>Test Year</i>					<i>Current Year</i>	
Purchased Power					Purchased Power	
Rate			\$0.0800	→	Rate	\$0.1000
Kilowatt Hours Used	1,250,000				Kilowatt Hours Used	1,250,000
Purchased Power					Purchased Power	
Expense			\$100,000		Expense	\$125,000

<i>Pass Through Calculation</i>	
Current Year Purchased Power Expense	\$125,000
Test Year Purchased Power Expense	\$100,000
Increase in Purchased Power Expense Due to Rate Increase	\$25,000

<i>PPAM Charge on Sample Customer Bill</i>	
Increase in Purchased Power Expense Due to Rate Increase	\$25,000
Number of Sewer Customers	20,000
PPAM Charge on Sample Customer Bill	\$1.25

ATTACHMENT 4

LIBERTY UTILITIES (ENTRADA DEL ORO SEWER) CORP.

**PROPOSED PLAN OF ADMINISTRATION FOR
PROPERTY TAX ADJUSTMENT MECHANISM**

I. GENERAL DESCRIPTION.

This document is the Plan of Administration ("POA") for the Property Tax Adjustment Mechanism ("PTAM") for Liberty Utilities (Entrada Del Oro Sewer) Corp. ("Liberty EDO" or "Company") approved by the Arizona Corporation Commission ("Commission") in Decision No. _____ on _____, 2017. The PTAM allows Liberty EDO to pass through to its customers the increase or decrease in property taxes that results from a change in the applicable assessment ratio and/or property tax rates.

II. PTAM RELATED FILINGS.

A. Within 60 days of the effective date of a change in the assessment ratio and/or property tax rates applicable to the Company, the Company shall file with Docket Control an analysis of the actual impact on the Company's property tax expenses.

B. The Company will provide the Commission with spreadsheets detailing exactly how the Company's property tax expenses were calculated in the time period prior to a change in the assessment ratio and/or property tax rate that affects the Company's property tax expenses. These calculations will include the assessment ratio, the property tax rates, and the value of the property that was taxed. For the period following the change(s), the Company will provide the same information, then compare the two periods, isolating any change in property tax expense that is due exclusively to changes in the assessment ratio and/or property tax rates. The specific intent is to show exactly how much of any increase or decrease in property tax expense is due to changes in the assessment ratio and tax rates beyond the Company's control and how much is due to changes in the value of the property the Company owns. The Company will only recover increases or refund decreases that are due to changes in the assessment ratio and tax rates.

C. All revised schedules filed with the Commission pursuant to the provisions of this PTAM will be accompanied by documentation prepared by the Company in a format approved by Utilities Division Staff of the Commission and will contain sufficient detail to enable the Commission to verify accuracy of the Company's calculations.

D. The surcharges will not become effective until approved by the Commission.

E. The Company will file annually with the Commission a report detailing the Company's property tax expenses.

F. The Company shall provide notice (in a form acceptable to Staff) of the rate increases to customers with the bill where the rate increase first appears.

III. APPLICATION TO SEWER CUSTOMERS.

A. The increase or decrease in property tax expenses that are due to changes in the assessment ratio and/or property tax rates at the Company's sewer facilities will be allocated on a per capita basis.

B. See the examples on the next page:

Change in Assessment Ratio Example

Test Year			Current Year	
Assessment Ratio	20.00%	➡	Assessment Ratio	21.00%
Property Full Cash Value	\$10,000,000		Property Full Cash Value	\$10,000,000
Assessed Valuation	\$2,000,000		Assessed Valuation	\$2,100,000

Change in Assessed Valuation	
Current Year Assessed Valuation	\$2,100,000
Test Year Assessed Valuation	\$2,000,000
Increase in Assessed Valuation Due to Increase in Assessment Ratio	\$100,000

Test Year		Current Year	
Total Property Tax Rate	10.00%	Total Property Tax Rate	10.00%
Assessed Valuation	\$2,000,000	Assessed Valuation	\$2,100,000
Property Tax Expense	\$200,000	Property Tax Expense	\$210,000

PTAM Charge on Sample Customer Bill	
Increase in Property Tax Expense Due to Increase in Assessment Ratio	\$10,000
Number of Sewer Customers	20,000
PTAM Charge on Sample Customer Bill	\$0.50

Change in Total Property Tax Rate Example

Test Year			Current Year	
Total Property Tax Rate	10.00%	➡	Total Property Tax Rate	11.00%
Assessed Valuation	\$2,000,000		Assessed Valuation	\$2,000,000
Property Tax Expense	\$200,000		Property Tax Expense	\$220,000

Pass Through Calculation	
Current Year Property Tax Expense	\$220,000
Test Year Property Tax Expense	\$200,000
Increase in Property Tax Expense Due to Rate Increase	\$20,000

PTAM Charge on Sample Customer Bill	
Increase in Property Tax Expense Due to Rate Increase	\$20,000
Number of Sewer Customers	20,000
PTAM Charge on Sample Customer Bill	\$1.00

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7

8 **BEFORE THE ARIZONA CORPORATION COMMISSION**
9

10 IN THE MATTER OF THE APPLICATION
11 OF LIBERTY UTILITIES (ENTRADA DEL
ORO SEWER) CORP., AN ARIZONA
12 CORPORATION, FOR A
13 DETERMINATION OF THE FAIR VALUE
14 OF ITS UTILITY PLANTS AND
PROPERTY AND FOR INCREASES IN ITS
15 WASTEWATER RATES AND CHARGES
FOR UTILITY SERVICE BASED
THEREON.

DOCKET NO: SW-04316A-15-_____

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**DIRECT TESTIMONY OF
MATTHEW GARLICK**

March 3, 2016

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1 **I. INTRODUCTION.**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is Matthew Garlick. My business address is 12725 W. Indian School
4 Road, Suite D-101, Avondale, Arizona 85392.

5 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

6 A. I have been employed by Liberty Utilities since 2000. On June 1, 2015, I became
7 President of the Liberty Utilities regulated utilities in Arizona and Texas, including
8 Liberty Utilities (Entrada Del Oro Sewer) Corp. ("Liberty EDO" or "Company"),
9 formerly known as Entrada Del Oro Sewer Company, Inc.

10 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?**

11 A. I'm providing this testimony on behalf of the applicant, Liberty EDO.

12 **Q. PLEASE DESCRIBE YOUR RESPONSIBILITIES AS PRESIDENT OF**
13 **LIBERTY UTILITIES IN ARIZONA/TEXAS.**

14 A. I am responsible for Liberty Utilities' water and sewer operations in Arizona and
15 Texas.¹ This includes directing the daily operations and administration of all of the
16 utilities, including their financial and operating results, capital and operating cost
17 budgeting, rate case planning and oversight, and regulatory policies and
18 procedures. As President, I also oversee customer and development services,
19 environmental, health and safety, accounting/finance, human resources,
20 engineering, and conservation planning.

21

22

23

24 ¹ In Arizona, along with Liberty EDO, Liberty Utilities also owns and operates Liberty
25 Utilities (Bella Vista Water) Corp. ("Liberty Bella Vista"), Liberty Utilities (Black
26 Mountain Sewer) Corp. ("Liberty Black Mountain"), Liberty Utilities (Gold Canyon
Sewer) Corp., Liberty Utilities (Litchfield Park Water & Sewer) Corp. ("Liberty
Litchfield Park"), and Liberty Utilities (Rio Rico Water & Sewer) Corp. ("Liberty Rio
Rico").

1 **Q. WHAT OTHER POSITIONS HAVE YOU HELD WITH LIBERTY**
2 **UTILITIES?**

3 A. I was hired in January 2000 as a Technical Services Supervisor. In November
4 2009, I was named Business Manager of Liberty Utilities (Litchfield Park Water &
5 Sewer) Corp. (formerly known as Litchfield Park Service Company), and was
6 responsible for operations for approximately 40,000 utility customers. In March
7 2012, I assumed the role of Director of Operations – Arizona, and was responsible
8 for operations throughout Arizona, as well as Texas, Missouri, and Illinois. In June
9 2015, I became President of our operating utilities in Arizona and Texas.

10 **Q. WHAT WAS YOUR EDUCATION AND EMPLOYMENT PRIOR TO**
11 **LIBERTY UTILITIES?**

12 A. For 15 years prior, I was a Senior Project Geologist with an environmental
13 engineering firm called Environmental Science and Engineering. My role was to
14 direct and support other project scientists in the daily work activities on various
15 State of Arizona Water Quality Assurance Revolving Fund (WQARF) groundwater
16 remedial projects. Before that, I earned a Bachelor of Science degree in Earth
17 Science from Northern Arizona University.

18 **Q. DO YOU HOLD ANY CERTIFICATIONS?**

19 A. Yes. I hold the highest level of Operator Certifications (Grade IV – WD, WP,
20 WWT, and Grade III in WWC) in Arizona. I am also a certified Backflow Tester.
21 Additionally, I belong to several professional organizations such as the American
22 Water Works Association (AWWA), and American Backflow Preventer
23 Association (ABPA). In addition, I am a Board Member for both Water Utilities
24 Association of Arizona and Independent Water and Sewer Companies of Texas.

25 **Q. HAVE YOU TESTIFIED BEFORE THIS OR ANY OTHER COMMISSION?**

26 A. Yes, I recently testified during the hearing on the Liberty Black Mountain rate case

1 and financing dockets,² and I have submitted pre-filed direct testimony in the
2 pending Liberty Bella Vista and Liberty Rio Rico rate cases and financing
3 applications, all of which have been consolidated.³

4 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS**
5 **PROCEEDING?**

6 A. To support Liberty EDO's request for rate relief. Specifically, I provide general
7 background, first concerning Liberty Utilities, and then regarding Liberty EDO.
8 I will also explain the approach we took preparing this rate case, specifically, the
9 steps we have taken and the relief we are seeking to soften the impact of needed
10 rate increases. I also address the Company's request for approval of certain
11 expense adjusters, adjusters that we feel should be standard practice in this
12 industry, and explain the Company's proposed changes to its Tariff of Rates and
13 Charges. Finally, I touch on the Company's request for financing, which is being
14 filed at the same time, and we are asking that this rate case and the financing
15 application be consolidated.

16 **Q. CAN YOU SUMMARIZE THE STEPS LIBERTY IS TAKING TO LESSEN**
17 **THE IMPACT OF RATE INCREASES ON CUSTOMERS?**

18 A. Yes. First, we have increased contributions in aid of construction ("CIAC") on our
19 books to reflect CIAC that was previously treated as paid in equity by the
20 Company's prior owners. Mr. Bourassa explains this adjustment in his direct
21 testimony.⁴ Second, we have removed plant held for future use from rate base.
22 These two adjustments have reduced the proposed fair value rate base by over

23 ² Docket Nos. SW-02361A-15-0206 and SW-02361A-15-0207 (consolidated).

24 ³ Docket Nos. W-02465A-15-0367, W-02465A-15-0370, WS-02676A-15-0371, and WS-
25 02676A-15-0371.

26 ⁴ Direct Testimony of Thomas J. Bourassa – Rate Base, Income Statement and Rate
Design ("Bourassa Dt.") at 7-8.

1 \$1.3 million. Third, we are proposing that the necessary rate increases be phased
2 in over two years.

3 **II. OVERVIEW OF LIBERTY UTILITIES.**

4 **Q. PLEASE PROVIDE AN OVERVIEW OF LIBERTY UTILITIES.**

5 A. Liberty Utilities Co. ("Liberty Utilities") is a Delaware corporation that operates
6 regulated gas, water, sewer and electric utilities in eleven states—Arizona,
7 Arkansas, California, Georgia, Illinois, Iowa, Massachusetts, Missouri, Montana,
8 New Hampshire and Texas. Liberty Utilities Co. is a subsidiary of Liberty Utilities
9 (Canada) Corp. ("Liberty Utilities Canada"). The Arizona utilities, including
10 Liberty EDO, are wholly owned subsidiaries of Liberty Utilities (Sub) Corp.,
11 which is a wholly owned subsidiary of Liberty Utilities. Algonquin Power &
12 Utilities Corp., or APUC, a publicly traded member of the Toronto Stock
13 Exchange, ultimately owns all of the Liberty Utilities entities, including Liberty
14 EDO.

15 APUC is a \$4.1 billion electric generation, transmission and distribution
16 utility company based in Oakville, Ontario. APUC is listed on the Toronto Stock
17 Exchange and is a registrant with the U.S. Security and Exchange Commission.
18 APUC subsidiaries own and operate regulated water, sewer, gas and electric
19 utilities in the United States, and own non-regulated generation facilities and
20 regulated electric transmission and natural gas pipelines throughout the United
21 States and Canada. The distribution business group operates in the United States as
22 Liberty Utilities and provides rate-regulated water, sewer, electricity and natural
23 gas utility services to nearly half a million customers.⁵

24
25
26 ⁵ Liberty Utilities currently has over 550,000 regulated customers.

1 More recently, on February 11, 2016, APUC announced a joint agreement
2 under which Liberty Utilities will merge with the Empire District Electric
3 Company. Founded in 1909, Empire is a regulated utility company that provides
4 electric, natural gas and water services to 218,000 customers in Missouri, Kansas,
5 Oklahoma, and Arkansas. Empire also owns and operates its own electric
6 generation facilities in the region. The proposed merger with Empire marks a
7 significant evolution of the regulated utility business component of our
8 organization. Collectively, upon regulatory approval, we will be serving close to
9 800,000 customers (up from 550,000) and grow our regulated rate base to
10 \$3 billion. Our Arizona customers will continue to benefit from shared services
11 and expertise provided under the Liberty Utilities umbrella as we continue to
12 spread it out over an increasingly larger base of customers.

13 APUC's electric generation business group operates as Algonquin Power
14 Co. ("APCO") and owns or has interests in a portfolio of north American based
15 contracted wind, solar, hydroelectric and natural gas powered generating facilities
16 representing more than 1,150 MW of installed capacity. The transmission business
17 group invests in rate regulated electric transmission and natural gas pipeline
18 systems in the United States and Canada. Common shares and preferred shares of
19 APUC are traded on the Toronto Stock Exchange under the symbols AQN,
20 AQN.PR.A and AQN.PR.D. The APUC website is
21 www.AlgonquinPowerandUtilities.com.

22 **Q. WHAT IS LIBERTY UTILITIES' OVERALL PHILOSOPHY REGARDING**
23 **THE OPERATION OF ITS REGULATED UTILITY BUSINESSES?**

24 A. Liberty Utilities promotes a common set of organizational values to help guide
25 day-to-day business decisions. These organizational values are Quality, Efficiency
26 and Care. They are the foundation of the Liberty Utilities culture and provide

1 guidance on day-to-day business operations. Overarching all of those organization
2 values is Safety. Liberty Utilities considers Safety a meta-level value and places
3 safety of customers, employees and community first and foremost. In addition to
4 local operations, strategic oversight and administrative support services are
5 provided centrally from Liberty Utilities Canada and APUC to the local utility
6 businesses. We take this approach because we believe these services can be
7 provided more cost effectively and in a manner that ensures consistent quality
8 across all of our operating utilities if provided on a shared services basis. We strive
9 to ensure, however, that doing so will not detract from the local presence that is
10 valued by our customers and regulators. Customers receive significant benefits
11 from this shared services model and the local approach in the provision of high
12 quality utility service.

13 **Q. HOW DOES LIBERTY UTILITIES' REGULATORY PHILOSOPHY**
14 **INFLUENCE THE WAY IN WHICH IT APPROACHES THE**
15 **MANAGEMENT AND OPERATION OF THE UTILITIES IT OWNS?**

16 A. We believe that there is no adequate substitute for local management, local
17 decision-making and local operational control for a utility that is serious about
18 achieving the highest level of customer satisfaction and maintaining strong
19 regulatory compliance. We believe that utilities can best meet the needs of
20 customers and regulators when the people making the decisions impacting the
21 communities they serve are located near those customers and are in close contact
22 with customers and regulators. In terms of operating its regulated utilities, Liberty
23 Utilities focuses on local management control and operation. We operate on the
24 following corporate principles—Local. Responsive. We Care.

25 Each state has a President who directs the utilities in that state. I am that
26 President in Arizona and Texas. The state presidents have local decision making

1 authority and responsibility, including operational and financial authority. We
2 have local customer service representatives to interact with customers directly.
3 Customers, based on our experience, appreciate the “local” aspect of our service,
4 and we try to accomplish that wherever reasonably possible. We have been
5 successful in implementing this local service approach in Arizona.

6 **Q. WHAT ROLE DOES LIBERTY UTILITIES PLAY IN THE OPERATION**
7 **AND MANAGEMENT OF LIBERTY EDO?**

8 A. Liberty Utilities is more than just a holding company – it is the operator of Liberty
9 EDO. Employees that operate, administer and manage the day-to-day operations
10 are employed by Liberty Utilities Service Corp. (“LUSC”), a direct subsidiary of
11 Liberty Utilities. Liberty Utilities is also Liberty EDO’s source of capital for utility
12 plant investment and operations with investment capital ultimately coming from
13 APUC.

14 **Q. ARE THERE ADVANTAGES TO OPERATING IN THIS MANNER?**

15 A. Yes, there are substantial advantages. To start, operating in this manner achieves
16 economies of scale that allow us to provide great service at a reasonable price.
17 As a stand-alone utility, Liberty EDO would have to hire and pay full time
18 engineering staff, human resources, safety and rates personnel, repair and
19 maintenances staff, accounting and billing staff, and customer service and
20 management. In turn, those stand-alone costs would be incorporated into rates.
21 We all see these financial realities daily in the hundreds of small water and sewer
22 utilities regulated by the Commission. In Arizona, Liberty Utilities currently has
23 107 employees working to provide the best possible service at a reasonable cost to
24 the customers of six different regulated water and wastewater utilities.
25
26

1 **Q. BUT DOES THE COMPANY REALLY NEED THAT MANY FULL-TIME**
2 **EMPLOYEES TO OPERATE SAFELY AND RELIABLY?**

3 A. Please keep in mind that Liberty EDO does not have any full-time staff, which
4 illustrates the benefits of Liberty's operations model. Each of us within the Liberty
5 Utilities structure has a role in the running of all of the utility operations and that
6 allows us to have the right people with the right skills available to do the job for
7 each and any utility as needed. This operational structure also allows us to share
8 those necessary costs over multiple entities, in turn reducing service costs and rates
9 for customers.

10 **Q. DOESN'T THIS ARRANGEMENT RESULT IN CONFUSION OVER THE**
11 **COSTS FOR LIBERTY UTILITIES' VARIOUS ARIZONA UTILITIES?**

12 A. No. All direct costs related to each utility's specific operations are direct charged
13 to that utility. Common costs are pooled and allocated through a central cost
14 allocation. Mr. Killeen, Director, Regulatory Strategy for Liberty Utilities
15 (Canada) Corp., addresses the corporate cost allocations from APUC and Liberty
16 Utilities Canada in his direct testimony. All of the costs are scrutinized in the
17 ratemaking process.

18 **III. OVERVIEW OF EDO.**

19 **Q. PLEASE PROVIDE AN OVERVIEW OF LIBERTY EDO.**

20 A. The Company was formed for the purpose of providing wastewater utility service
21 to the Entrada Del Oro development located in Pinal County about four miles east
22 of Gold Canyon. The Company's service area includes approximately 160 acres,
23 336 residential units, a school site, and certain common areas. Liberty Utilities
24 acquired the stock of Entrada Del Oro Sewer Company, Inc. in a transaction that
25 closed in August 2008.
26

1 **Q. DID LIBERTY UTILITIES SEEK COMMISSION APPROVAL FOR THE**
2 **PURCHASE OF THE COMPANY'S STOCK?**

3 A. Yes. The proposed transaction was approved as a reorganization of a holding
4 company relating to Liberty Litchfield Park, then a Class A utility, in Decision No.
5 73350 (August 21, 2012) pursuant A.A.C. R14-2-801, *et seq.*

6 **Q. PLEASE DESCRIBE THE LIBERTY EDO SYSTEM AND FACILITIES.**

7 A. Liberty EDO currently serves 336 residential customers. Collected wastewater is
8 delivered to the Entrada Del Oro wastewater treatment plant ("EDO WWTP").
9 The EDO WWTP was constructed in 2006 with an original design capacity of
10 150,000 gallons per day (gpd). The plant could treat up to 300,000 gpd with
11 additional improvements. Effluent disposal is through permitted discharge at a
12 location approximately one mile north of the facility.

13 **Q. WHAT WERE THE TEST YEAR WASTEWATER FLOWS INTO THE**
14 **PLANT?**

15 A. The peak daily flows were 77,000 gpd during the test year, and the average
16 monthly wastewater flow during the test year was 39,194 gpd.

17 **Q. DOES THAT MEAN THE PLANT IS TOO BIG?**

18 A. It means we have a treatment plant that was built, in part, to handle larger flows
19 than we have experienced to date. It must be remembered, however, that this plant
20 was constructed in 2006, which means it was designed, planned, permitted and
21 constructed during the high growth years from 2003-2006. In Arizona at that time,
22 it was perfectly reasonable to expect, plan and construct facilities to keep up with
23 extensive growth. Although the EDO subdivision did not ultimately take off as
24 planned, we need to evaluate those decisions in light of the information available at
25 the time the decision to design, permit and build the plant was made.

26

1 What the prior owners did was construct certain portions of the treatment
2 plant in 2006 in a manner that took advantage of economies of scale and would
3 mean that the operators could avoid major system disruption to make the same
4 improvements at a later date. In other words, they built the plant with the
5 capability to expand from its currently as-built level of 150,000 gallons per day to
6 300,000 gallons per day. The result, given the economic downturn that started in
7 2008 and its impact on the Arizona real estate market, is that we now have a
8 treatment plant that has some parts that are bigger than we currently need. This is
9 also known as plant held for future use.

10 **Q. CAN THE COST OF THESE FACILITIES BUILT IN ANTICIPATION OF**
11 **MORE RAPID GROWTH BE QUANTIFIED?**

12 A. Yes. The EDO WWTP has an original cost of approximately \$2.8 million.⁶
13 Approximately \$299,000 was the cost of making the plant capable of expansion
14 from 150,000 gallons per day to 300,000 gallons per day.

15 **Q. HOW WAS THAT AMOUNT DETERMINED?**

16 A. We hired NCS Engineering to conduct an engineering analysis and make this
17 determination. That analysis is attached to my testimony as **Exhibit MG-DT1**.
18 Essentially, NCS determined what facilities at the plant as constructed go beyond
19 the plant capacity of 150,000 gpd as built. NCS reviewed each portion of the plant
20 as built and determined that \$299,000 in facilities went beyond the needs of the
21 plant as constructed for treatment of 150,000 gpd. We can surmise that had the
22 owners not believed they would soon need more than 150,000 per day of capacity,
23 they would have spent \$299,000 less and not made the plant expandable. But they
24 believed they would need the additional capacity soon enough, and believed it was

25
26 ⁶ Based upon 2006 plant additions to plant accounts 354, 371, and 380.

1 cheaper and less disruptive to make the plant expandable from the start.

2 **Q. BUT WHY ISN'T EVERYTHING OVER THE PEAK FLOW**
3 **UNNECESSARY?**

4 A. Because it isn't that simple.

5 **Q. WHY NOT?**

6 A. Perhaps the best way of looking at these issues is that the original owners of the
7 Company built some facilities so that those facilities could be expanded to
8 ultimately treat 300,000 gpd of sewage. As constructed, some facilities were built
9 to serve 150,000 gpd. And, the design, construction and cost of some facilities
10 would be the same whether the Company treats 77,000 gpd, 150,000 gpd or
11 300,000 gpd. As a result, the engineers analyzed how much extra cost resulted
12 from the facilities that were sized to treat up to 300,000 gpd with additional
13 improvements, the cost of the plant held for future use.

14 **Q. THANK YOU. WHEN DID THE CURRENT RATES GO INTO EFFECT?**

15 A. The current rates were approved in Decision No. 68306 (November 14, 2005),
16 more than eleven years ago when the Commission granted the CC&N. At that
17 time, the Commission ordered a rate case in the sixth year of operations.

18 **Q. WHY DIDN'T LIBERTY EDO FILE SOONER?**

19 A. Liberty Utilities acquired the Company in 2008 and it took us a while to fully
20 integrate the Company's pre-existing books and finances into the Liberty model.
21 In 2011-2012, when the Company was in its sixth year of operation, we also were
22 involved in rate cases for our bigger Arizona utilities (Liberty Litchfield Park and
23 Liberty Rio Rico), as well as the ongoing plant closure for Liberty Black Mountain,
24 all of which required a substantial amount of time and resources. As a result, it
25 appears that filing a general rate case for Liberty EDO got pushed down the
26 priority list. In the meantime, customers have avoided any rate increases since the

1 CC&N decision in 2005, more than a decade ago. Put another way, Liberty EDO's
2 customers have benefitted from wastewater service at below cost rates for many
3 years.

4 **Q. WHY IS LIBERTY EDO FINALLY FILING A RATE CASE NOW?**

5 A. The Company is clearly under earning, charging rates based on more than 10 year
6 old estimates from before the Company started serving customers, and we are now
7 well past the time the Commission ordered the Company to file a general rate case.
8 We simply could not wait any longer.

9 **Q. BUT MR. GARLICK, ISN'T THE DELAY IN FILING THE REASON**
10 **LIBERTY EDO NOW NEEDS A SUBSTANTIAL RATE INCREASE OF**
11 **OVER 90 PERCENT?**

12 A. I think that's overly simplistic. For one thing, whenever the Company came in for
13 its first rate case, there was likely to be a substantial change in rates. The initial
14 rates were based on estimated plant and operating expense numbers, and a true up
15 to real numbers was likely to result in a significant rate increase, whether it was in
16 2012, 2014 or now, 2016. Additionally, our plant has further depreciated without
17 offsetting capital improvements, so that additional passage of time has actually
18 helped to keep the necessary rate increases from being higher. Likewise, while
19 virtually every expense is higher now than over 10 years ago, the Liberty model
20 has likely offset some of the impacts of such cost inflation. Today, the Company is
21 providing a high level of service quality as efficiently as possible. The time has
22 now come for the rates to cover the cost of service.

23 **Q. WHAT IS LIBERTY EDO'S CURRENT COMPLIANCE STATUS?**

24 A. To the best of our knowledge, Liberty EDO is otherwise in compliance with the
25 rules and regulations of ADEQ, ADWR, and the Commission, with the single
26

1 exception regarding the timing of this rate case as ordered by the Commission as I
2 discussed earlier.

3 **IV. ADJUSTMENT MECHANISMS.**

4 **Q. YOU MENTIONED EARLIER THAT LIBERTY EDO IS SEEKING**
5 **CERTAIN APPROVALS REGARDING DEFERRED ACCOUNTING AND**
6 **ADJUSTMENT MECHANISMS. CAN YOU START BY IDENTIFYING**
7 **THE SPECIFIC RELIEF THE COMPANY SEEKS?**

8 A. I would be glad to. On the expense side, we are seeking approval of a Purchased
9 Power Adjustment Mechanism ("PPAM") and a Property Tax Adjustment
10 Mechanism ("PTAM").

11 **Q. IS IT COMMON FOR THE COMMISSION TO APPROVE THESE TYPES**
12 **OF ADJUSTERS FOR WATER AND SEWER UTILITIES, MR. GARLICK?**

13 A. No, but it should be. These types of adjusters are necessary to ensure that the
14 utility has a fair chance to actually earn the revenue requirement the Commission.

15 **Q. WHAT DO YOU MEAN?**

16 A. The rates set by the Commission usually do not result in the utility actually earning
17 its revenue requirement. At least that's largely been Liberty's experience, and this
18 is largely attributable to the use of the historical test year, under which rates go into
19 effect some two or more years after the "test year." The lack of forward looking
20 rate setting measures means that the only way rates can keep up with plant and
21 expenses and to partially overcome regulatory lag is to file a lot of rate cases.

22 For years, I experienced the difficulties stemming from inadequate revenues
23 from an operations standpoint, where every cost increase we absorbed at the
24 operating level took away from the shareholder's return. Now, as President, I see
25 that impact every day, as I have to compete with utilities in all the other states
26 where Liberty operates, and nearly all of those other utilities consistently deliver

1 better returns than our systems in Arizona. So, I came to this and our other
2 pending rate cases with the belief that the rate setting process can be improved, and
3 one way is broader use of things like expense adjusters to help combat cost
4 increases that are outside the utility's control, but erode away any chance at earning
5 an adequate return.

6 **Q. HOW WILL THE PROPOSED ADJUSTERS HELP ADDRESS THE**
7 **CONCERNS YOU HAVE EXPRESSED?**

8 A. Rate cases are expensive and take a long time, so the failure to recover cost
9 increases between rate cases undermines any realistic opportunity we have to earn
10 our authorized revenues and returns. This is particularly an issue here in Arizona,
11 which uses a historic test year. Adjusters like these allow utilities to recover
12 increases in specific operating costs that occur between test years and rate cases.
13 Adjusters also allow decreases in operating costs to reduce the rates customers pay
14 for service.

15 **Q. BUT DON'T THESE TYPES OF ADJUSTERS DISCOURAGE UTILITIES**
16 **FROM MANAGING THEIR OPERATING EXPENSES?**

17 A. I don't agree with that. We are talking about necessary costs of service, and many
18 of these expenses are largely or entirely outside of our control. The rate for power
19 and the components of the property tax evaluation are not within our control.
20 Because they are not within our control, the notion that operating expenses will run
21 wild with adjusters is nonsense.

22 **Q. THANK YOU. WOULD YOU PLEASE SUMMARIZE THE PPAM?**

23 A. The PPAM allows Liberty EDO to increase rates in order to recover increases in
24 purchased power costs resulting from increases in the rates charged by Salt River
25 Project (SRP), our electric utility provider. These changes in SRP's rates are
26 beyond our control. In addition, the form of the PPAM is consistent with the form

1 of PPAM approved in Decision No. 74437 (April 18, 2014) for Liberty Litchfield
2 Park. Mr. Bourassa explains the specifics of the PPAM further in his direct
3 testimony.⁷

4 **Q. WHAT IF ELECTRIC UTILITY RATES GO DOWN?**

5 A. Then our operating expenses will go down and the PPAM will adjust the rates to
6 recognize that decrease. Again, adjusters are fair because they work whether costs
7 go up or down. I assume that's why the Commission has approved and recognized
8 purchased power and other similar adjusters for electric and gas utilities, and why it
9 recently approved a PPAM similar to the one proposed here for Liberty Litchfield
10 Park.⁸

11 **Q. PLEASE SUMMARIZE THE PTAM.**

12 A. As Mr. Bourassa explains in his direct testimony, the PTAM would allow rates to
13 adjust, up or down, based on changes in the property tax rate and/or assessment
14 ratios.⁹ Like the rates for power charged by SRP, these factors are outside of our
15 control. Also, like increases in purchased power, increases in property taxes, if
16 unrecovered, will undermine the Company's ability to earn its authorized return.
17 The PTAM addresses this in a manner similar to that in which the PPAM addresses
18 changes in the rates for power.

19 **V. PROPOSED RATE PHASE IN.**

20 **Q. WHY IS THE COMPANY PROPOSING TO PHASE IN THE RATE**
21 **INCREASES APPROVED IN THIS RATE CASE?**

22 A. Because we want our customers and the Commission to know that our corporate
23 principles — "Local, Responsive, We Care" are more than just slogans. We

24 ⁷ Bourassa Dt. at 16-17.

25 ⁸ Decision No. 74437 (April 18, 2014).

26 ⁹ Bourassa Dt. at 17.

1 believe the requested increase is what we need to recover our operating expenses
2 and earn a reasonable return. We also recognize that a 90 percent rate increase is
3 significant and we took steps in preparing this rate case to minimize the impact on
4 the customers, including phasing in the rates.

5 **Q. AT WHAT POINT IS AN INCREASE SIGNIFICANT ENOUGH TO**
6 **WARRANT A PHASE-IN, MR. GARLICK?**

7 A. There is no black and white line. Before we started to prepare this case for filing,
8 I could not envision a situation where a Liberty utility would actually propose
9 phased in rates. But this case presents unique circumstances. We have a small,
10 remote residential community that was expected to be a lot bigger, with a lot more
11 customers sharing the cost of making safe and reliable sewer utility service
12 available. We have customers that have never seen a rate increase, and it's been
13 over a decade since the current rates were set in a CCN proceeding. We also have
14 a shareholder that is entitled to a fair return on its investment yet has been
15 subsidizing the cost of service for the Liberty EDO customers. I had to balance all
16 of these factors in directing my team on what to do in this rate case.

17 In the end, we tried to strike a fair balance. As Mr. Bourassa explains, we
18 have reduced fair value rate base by about \$1.15 million to account for CIAC.¹⁰
19 Based on the facts underlying this case, increasing CIAC is the right thing to do.
20 So was the reduction I discussed above in my testimony to remove the cost of plant
21 held for future use. And in this rare instance, we believe a limited phase in also is
22 appropriate. I hope the Commission will understand that we are trying to do the

23 ¹⁰ Original cost rate base is reduced by over \$927,483 (Gross CIAC of \$1,013,352 less
24 accumulated amortization of \$85,869). Reconstruction Cost New less depreciation rate
25 base is reduced by nearly \$1,367,125 (Gross RCN CIAC of \$1,555,616 less RCN
26 accumulated amortization of \$155,486). Fair Value Rate Base was reduced by
approximately 1.15 million (\$927,483 plus \$1,367,125 divided by 2). See Bourassa Dt. at
8; Schedule B-1.

1 right thing here and not construe this effort as Liberty's consent to phasing in rates
2 in other circumstances. It wasn't easy to take steps that affirmatively and
3 considerably reduce our revenue requirement and I hope that the Commission and
4 our customers recognize the extraordinary measures we have taken.

5 **Q. THANK YOU, MR. GARLICK. CAN YOU DESCRIBE THE COMPANY'S**
6 **PROPOSED PHASE IN OF THE NECESSARY RATE INCREASES?**

7 A. I will leave the specific details to Mr. Bourassa.¹¹ What I asked for and what we
8 propose is a limited phasing in of the new rates under which Liberty EDO will be
9 made whole in the end.

10 **Q. WHAT DO YOU MEAN BY A "LIMITED" PHASING IN OF THE RATES?**

11 A. One that allows for the return to the actual rates in no more than three years.
12 Longer phase in periods result in a significant rate burden in the latter years as
13 customers pay to make the utility whole after the "deferral" years.

14 **Q. BUT WHY DOES THE COMPANY NEED TO BE MADE WHOLE?**

15 A. I am not a lawyer, but my understanding is that if the Commission says a utility is
16 entitled to a certain revenue requirement in order to recover its reasonable and
17 prudent operating expenses and a fair return, it can't then say "but we're not giving
18 it all to you." Here, we need a make whole provision because it's ultimately the
19 shareholder's money. The Company can defer recovery to lessen the impact on
20 customers, but we are not proposing that we give away our returns or revenue
21 foregone during the phase-in. That's why our phase in proposal is for a limited
22 period of time, at the end of which Liberty EDO would be made whole.

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¹¹ Bourassa Dt. at 15.

1 **VI. TARIFF CHANGES.**

2 **Q. DOES LIBERTY EDO PROPOSE ANY CHANGES OR MODIFICATIONS**
3 **TO ITS TARIFFS?**

4 A. Yes. A copy of the new proposed tariff is attached to the rate application as
5 Attachment 2.¹² The proposed tariff is part of our effort to standardize all of the
6 tariffs for Liberty Utilities' operating subsidiaries in Arizona. Standardizing our
7 tariffs is intended to promote efficiency by streamlining administration and
8 accounting for all of our Arizona utilities, and reducing confusion.

9 **Q. CAN YOU SUMMARIZE THE MORE SIGNIFICANT SPECIFIC**
10 **CHANGES BEING PROPOSED?**

11 A. Yes.

- 12 • Rates: The Company's proposed rates have been inserted, including the
13 phase-in period I discussed above.
- 14 • Additional Charges: The Company is also proposing a simplified statement
15 of charges that will standardize charges as much as possible across all of
16 Liberty Utilities' companies in Arizona. At Liberty EDO, for example, the
17 establishment fee would decrease from \$30 to \$25. The Company is also
18 proposing to calculate certain fees based on formulas in order to more
19 accurately align charges with actual costs. For example, the delinquent
20 reconnection charge would change from a flat amount of \$60 to being
21 driven by the actual cost of disconnection. Further, the after-hours service
22 charge would be \$50, regardless of the work process performed, and be
23 charged in addition to the regular business hours service charge.

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¹² A redline comparing the new tariff to the current tariff has also been included in the
26 Company's workpapers.

- Commercial Rate Design: Although the Company currently does not have any commercial customers, provisions for billing commercial customers based on water usage, including billing methodology when water use data is not available, have been added to the Tariff in the event that a commercial entity connects to the system.
- An Effluent Rate has been added.

VII. REQUEST FOR FINANCING APPROVAL.

Q. IN HIS DIRECT TESTIMONY, MR. BOURASSA MENTIONS A NEW CAPITAL STRUCTURE EQUAL TO 70 PERCENT EQUITY AND 30 PERCENT DEBT. WHY IS LIBERTY EDO PROPOSING A NEW CAPITAL STRUCTURE?

A. The Company presently has a 100 percent equity and 0 percent debt capital structure. However, at the same time as this rate application is being filed, the Company is filing a financing application. The sole purpose of the requested financing approval is for the Company to infuse debt into the Company's capital structure, resulting in a more balanced 70 percent equity and 30 percent debt capital structure. This is part of a Liberty-wide effort to modify and maintain each of the Arizona operating utilities at 70 percent equity and 30 percent debt, as we have already requested similar orders for Liberty Black Mountain, Liberty Rio Rico and Liberty Bella Vista in their pending rate and financing dockets.

Q. WHAT AMOUNT OF DEBT APPROVAL IS BEING REQUESTED?

A. We are seeking to obtain approval to finance debt of up to \$1.75 million. This amount of debt will allow us to rebalance the Company's capital structure from its 100 percent equity capital structure to the 70-30 equity to debt structure Mr. Bourassa utilized in this rate filing, and then to maintain that structure at those levels on a going-forward basis.

1 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?
2 A. Yes.
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MG-DT1



E N G I N E E R I N G

September 4, 2015

Todd Wiley, Assistant General Council
Liberty Utilities
12725 W. Indian School Rd. Suite D101
Avondale, AZ 85392

Re: Entrada Del Oro WWTP
Capacity and Cost Differential Analysis

Dear Mr. Wiley:

The Entrada Del Oro (EDO) WWTP was constructed in 2006 with an original design capacity of 150,000 gallons per day (gpd). The plant is equipped to handle up to 300,000 gpd with additional improvements. We understand that the plant is not treating the amount of flow anticipated during the time of original design. This letter is written to confirm the current and anticipated flows of the Entrada Del Oro WWTP as well as estimate additional costs incurred for the following two scenarios:

1. Additional cost if the plant were originally constructed for 150,000 gpd, and
2. Additional cost if the plant were constructed for the current anticipated maximum for the next five years (estimated at 97,400 gpd as described below).

The treatment process includes an influent pump station, rotating screen headworks, splitter box, two mechanical wastewater treatment trains (activated sludge treatment with nutrient removal, clarifiers, and aerobic sludge digestion), post-equalization, tertiary disk filtration, ultraviolet (UV) disinfection, and effluent pump station. Effluent disposal is through NPDES discharge at a location approximately one mile north of the plant. It is assumed that these same components would have been required for both lower flow scenarios. Attachment A contains photos of the system.

Scenario 1 - Additional cost if the plant were constructed originally for 150,000 gpd

The influent pump station, flow splitter box, flow equalization basin, tertiary filter, UV disinfection, and effluent pump station were sized to handle 300,000 gpd (all containment and mechanical equipment that was needed for 300,000 gpm was provided). Two basins were constructed for the biological treatment system (aerobic sludge digestion, biological treatment, and clarifier), each capable of handling 150,000 gpd. However, only one of the two systems was equipped with

mechanical equipment so it can be operated. Therefore the biological treatment system is only capable of handling 150,000 gpd. Blowers were provided to handle treatment to 150,000 gpd. However the building contained spaces for additional blowers for an expansion to 300,000 gpd. Also, odor control was constructed for 300,000 gpd.

The total cost differential is \$299,000 to provide the capability to expand to 300,000 gpd. as summarized in Table 1. Attachment B presents the differential cost analysis with notes. Attachment C contains an analysis of the treatment system that shows that it can handle wastewater with EDO's characteristics.

Table 1. Scenario 1 Cost Addition Summary

Item	Cost Addition	Notes
Influent Pump Station	\$7,200	Smaller pumps and less concrete could have been used.
Headworks	\$19,000	Smaller unit could have been used.
Flow Splitter Box	\$300	A v-notch weir could have been eliminated. Box was the smallest available.
Biological Treatment System	\$179,000	Less precast equipment, Smaller concrete slab and covers could have been used.
Tertiary Filtration	\$15,000	Smaller unit could have been used
UV Disinfection	\$24,000	Smaller unit could have been used, different manufacturer.
Effluent Pump Station	\$8,000	Smaller pumps only. Same wetwell size would have been used to provide plant utility water and minimize potable makeup water.
Odor Control	\$15,300	Smaller exhauster, smaller odor handling woodchip unit could have been used.
Generator	\$5,000	Generator could have been 250 instead of 300 KVA.
Building and Laboratory	\$11,200	Addition of 132 sf for more blowers for 300,000 gpd treatment.
Sitework and Safety	\$15,000	Lesser grading and paving needed.
Total	\$299,000	

Scenario 2 - Additional cost if the plant were constructed for 97,400 gpd

The flow of 97,000 gpd is based on EDO's current customer count of 336 Using 2.5 persons per home, design flow for existing current customers is 84,000 gpd. Applying an annual growth rate of 3% for five years, the design that would be used for this treatment plant is 97,400 gpd. Note that current flow records reveal a peak flow of 77,000 gpd. Attachment D presents the cost analysis with notes. The total cost differential is \$525,900 between a 97,400 gpd facility and a 300,000 gpd facility, per the breakdown of additional costs shown below:

Table 2. Scenario 2 Cost Addition Summary

Item	Cost Addition	Notes
Influent Pump Station	\$10,300	Smaller pumps and less concrete could have been used.
Headworks	\$19,000	Smaller unit could have been used.
Flow Splitter Box	\$300	A v-notch weir could have been eliminated. Box was the smallest available.
Biological Treatment System	\$350,500	Smaller precast system, smaller pipes and equipment could have been used.
Tertiary Filtration	\$26,000	Lower cost drum filter could have been used.
UV Disinfection	\$44,200	Smaller unit, different manufacturer could have been used.
Effluent Pump Station	\$10,000	Smaller pumps only. Same wetwell size would have been used to provide plant utility water and minimize potable makeup water.
Odor Control	\$22,400	Smaller exhauster, smaller odor handling woodchip unit could have been used.
Generator	\$12,000	Generator could have been 200 instead of 300 KVA.
Building and Laboratory	\$11,200	Addition of 132 sf for more blowers for 300,000 gpd treatment.
Sitework and Safety	\$20,000	Lesser grading and paving needed.
Total	\$525,900	

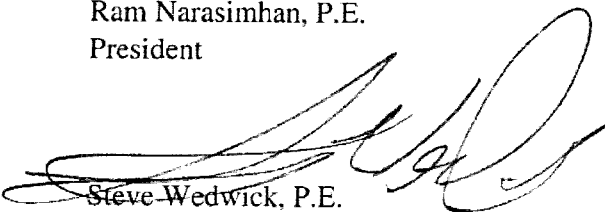
Please feel free to contact me at 602-629-0206 if you have questions or concerns.

Sincerely,

Ram Narasimhan, P.E.
President

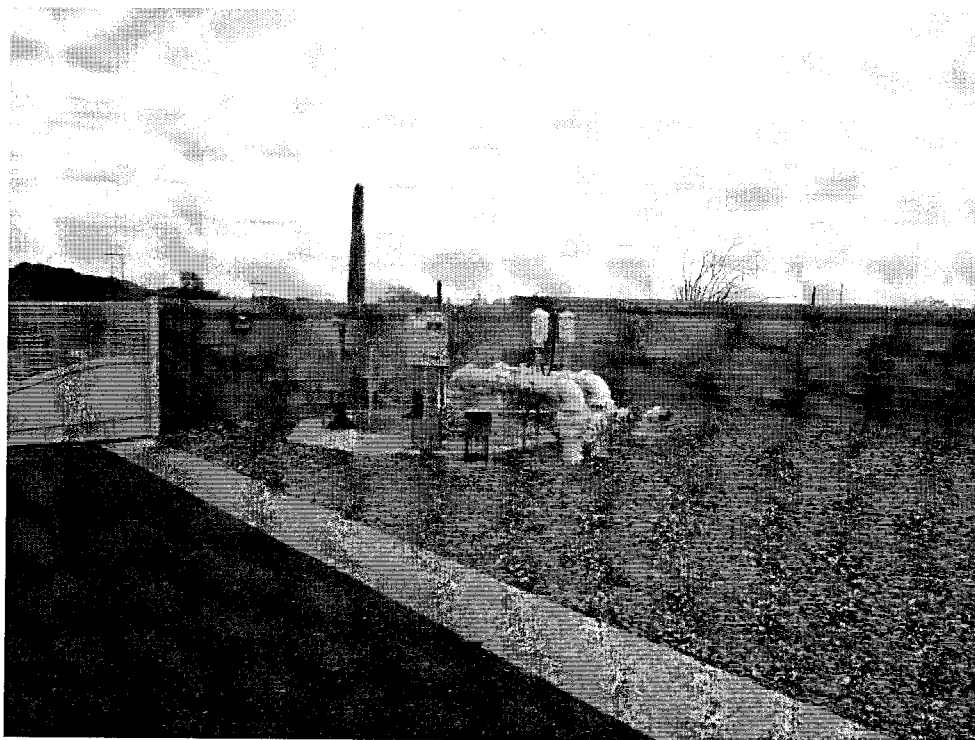


EXPIRATION DATE: 9/30/15

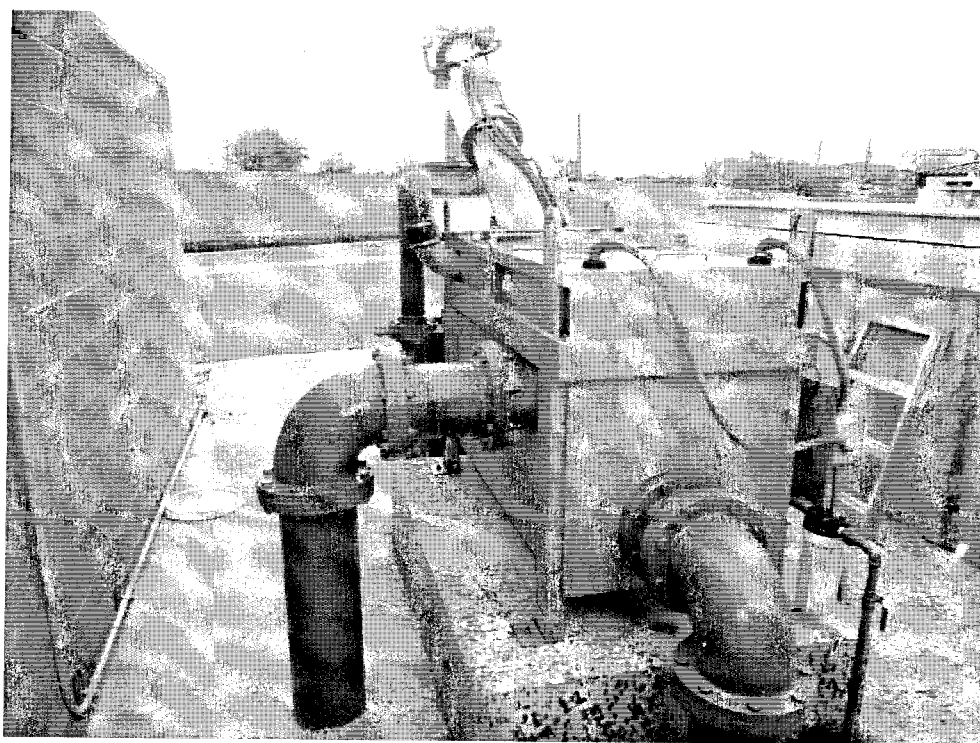

Steve Wedwick, P.E.
Senior Project Manager

- encl: Attachment A - Photos
Attachment B - Cost Analysis for Scenario 1
Attachment C - WWTP Capacity Analysis
Attachment D - Cost Analysis for Scenario 2

Entrada Del Oro WWTP Capacity and Cost Differential Analysis



Influent Pump Station



Headworks Screening

Entrada Del Oro WWTP Capacity and Cost Differential Analysis

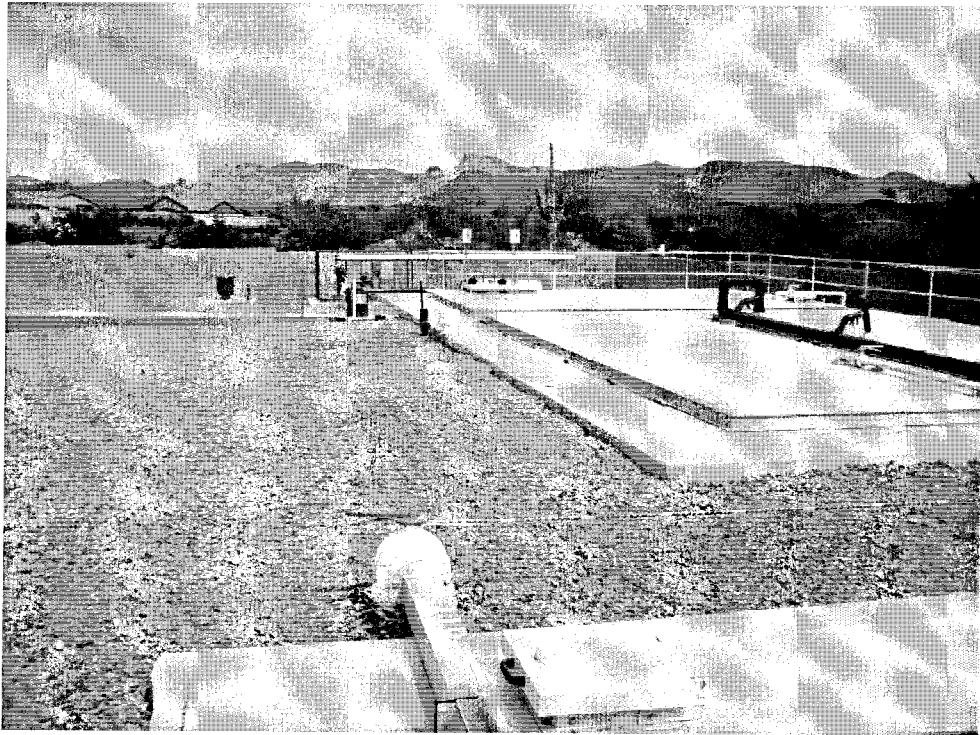


Splitter Box



Biological Treatment, Sludge Digester

Entrada Del Oro WWTP Capacity and Cost Differential Analysis



Clarifier and Flow Equalization

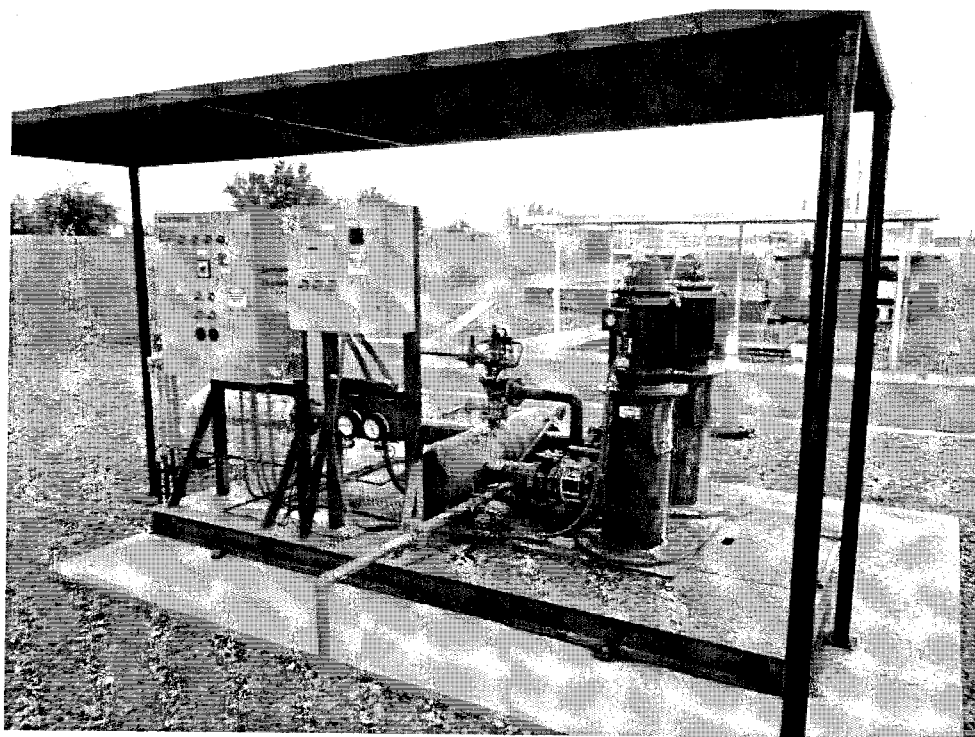


Tertiary Filtration and UV Disinfection

Entrada Del Oro WWTP Capacity and Cost Differential Analysis

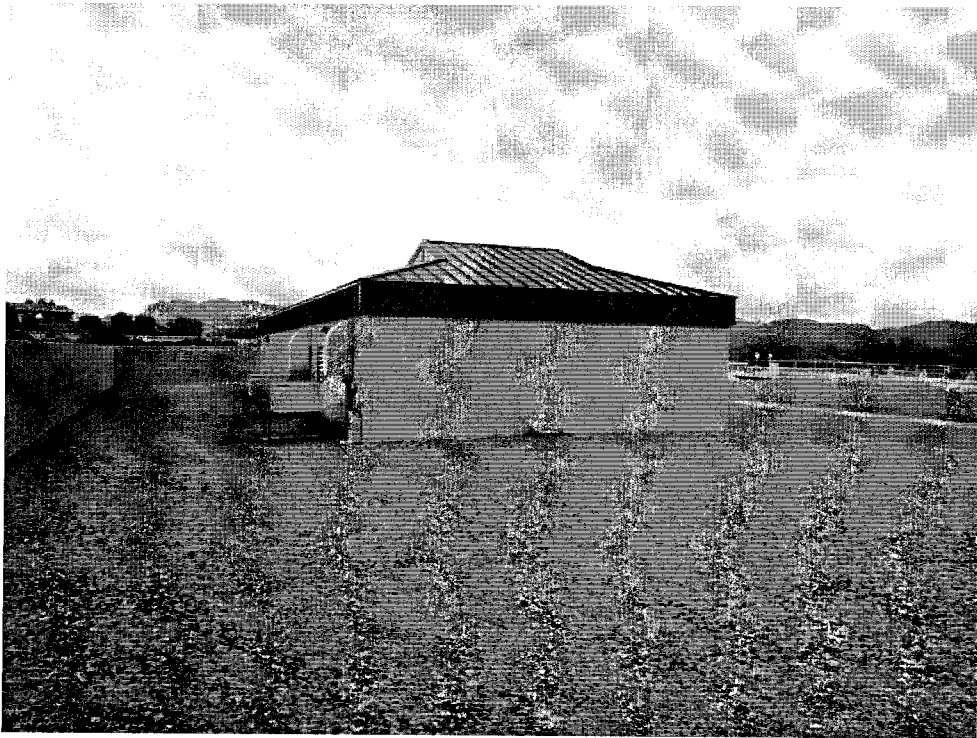


Odor Control System

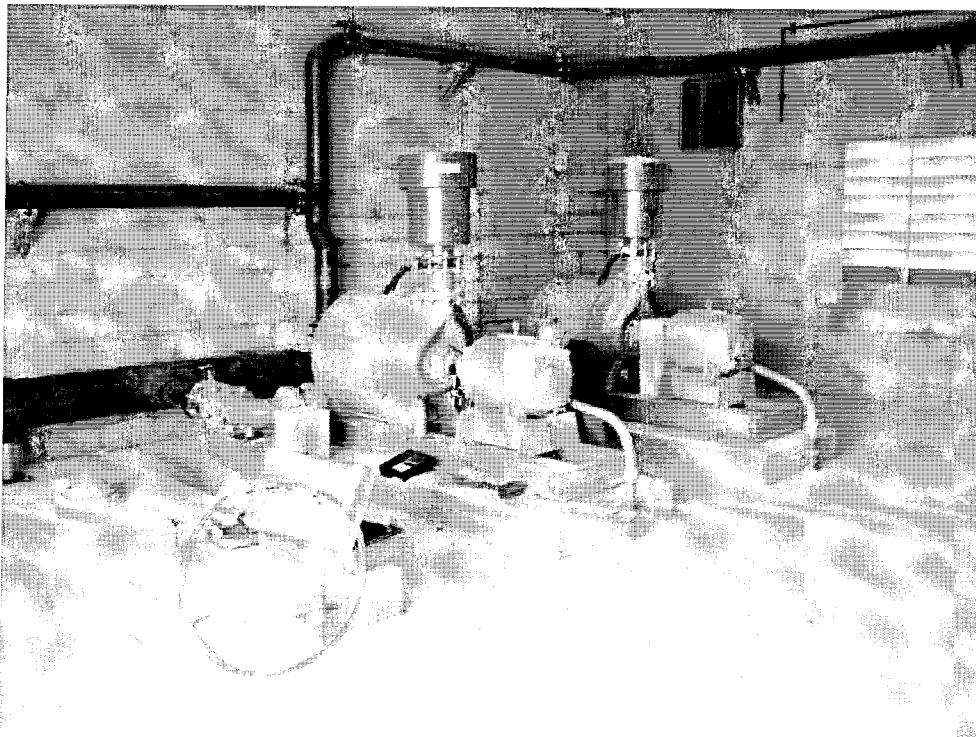


Effluent Pump Station

Entrada Del Oro WWTP Capacity and Cost Differential Analysis

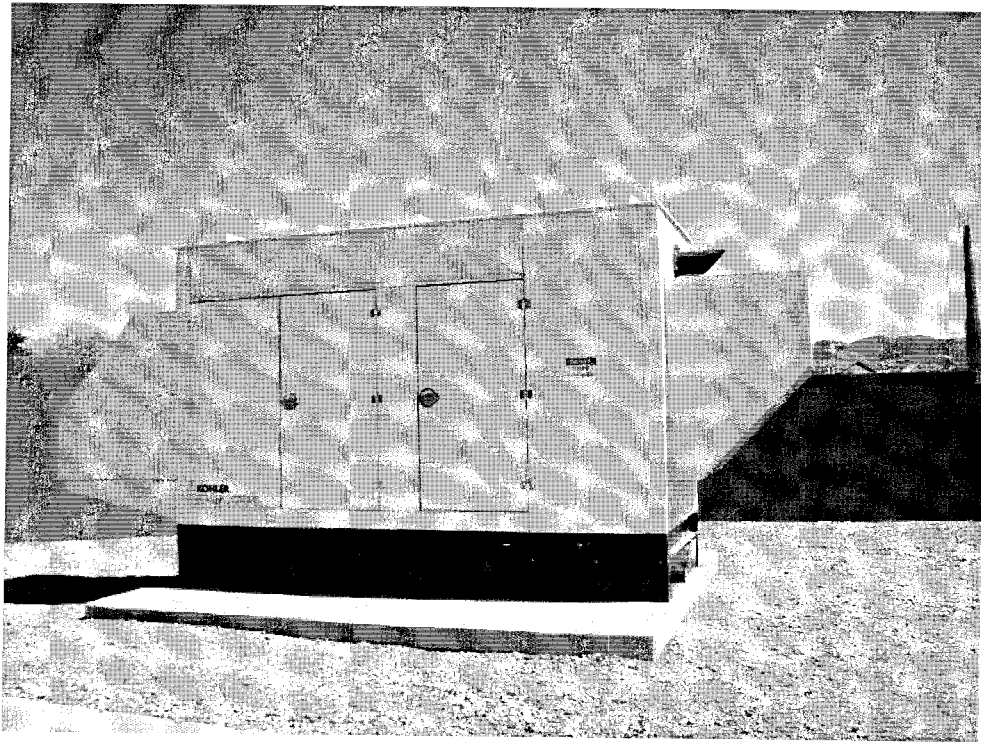


Administration Building



Aeration Blowers

Entrada Del Oro WWTP Capacity and Cost Differential Analysis



Emergency Generator



Effluent Outfall

Design Flow (gpd)	150,000
Addition of 5 years at 3%	1.16
Current customers	336
Flow per customer (gpd/home)	250
Average persons per home	2.50 Liberty Utilities Standard
Approximate population	840
Flow per person (gpd/person)	100
Population at design flow	1,500

Influent Pump Station		
Parameter	Value	Notes
Manufacturer(s)	Fairb-Morse	Duplex pump system.
Current Capacity (gpm)	700	From Sheet 5 of record drawings.
Needed Capacity (gpm)	236	Peak flow calculated using A.A.C.E301.D.1
Available Working Depth (ft)	2.87	From Sheet 5 of record drawings.
Available Working Volume (gal)	1,079	Based on 8 foot diameter wetwell.
Possible Working Volume (gal)	422	Based on 5 foot diameter wetwell.
Needed Wetwell Capacity (gal)	354	Based on Q*T/4, 6 minute cycle time (10 cycles per hour)
Required Head (ft)	23	Based on height differential and allowing for fittings and outlets.
Additional Concrete (cy)	3.28	Based on geometry of the basin.

Influent Pump Station Conclusions:

1. This wetwell could have been handled with a 5 foot diameter wetwell system.
2. That would have saved \$4,500 estimating addition of \$2,2500 per pump based on research done with Means 2010.
3. \$24,196 was the cost of the pumps and controls, \$13,068 is equipment purchase, \$11,000 labor. Difference is about \$5,500.
4. Incremental additional cost of excavation for different wetwell sizes is negligible.
5. Cost of concrete difference is about \$900 based on \$284 per cubic yard.
6. Cost addition going to 6" valves is about \$200 each, or \$800.
7. Total estimated addition is \$5,500+\$900+\$800 = \$7,200.

Headworks Screenings		
Parameter	Value	Notes
Manufacturer(s)	Lakeside	24" diameter fine screen (1/4" bar screen).
Current Capacity (gpm)	1,132	From Sheet 5 of record drawings.
Needed Capacity (gpm)	236	Calculated from current gpd/home and using A.A.C.E301.D.1

Headworks Screenings Conclusions:

1. Based on discussion with Lakeside, the purchase difference is about 20% lower for smaller (12") unit.
2. Original price of \$97,000. Purchase was \$62,300. Smallest unit would have been \$45,000. Install price would be about 95% of original install price (\$34,700).
3. Total addition would be about \$17,300+\$1,735 = \$19,000 based on conversation with Lakeside (4/12/15).

Flow Splitter Box		
Parameter	Value	Notes
Manufacturer(s)	MarWood	Stand alone box with three weirs.

Flow Splitter Box Conclusions:

1. This box would have been necessary regardless since redundancy is standard practice.
2. The box was the smallest the MarWood offered.
3. The only addition would have been the elimination of the third v-notch weir (about \$300).

Effluent Pump Station		
Parameter	Value	Notes
Manufacturer(s)	FlowTronex	Duplex package system with plant water pump.
Current Capacity (gpm)	347	From Sheet 5 of record drawings.
Needed Capacity (gpm)	104	Average design flow due to equalization.

Effluent Pump Station Conclusions:

1. Contractor cost for the package system was \$47,955. Approximately \$14,000 was for the pumps.
2. Reducing to 7.5 hp would have saved about \$7,800.
3. Per supplier, the labor for installation, controls, etc. would have been about the same.
4. Wetwell size would have been about the same for plant water capacity.
5. Piping could have been reduced to 4" from 6." Cost addition is mostly with valves, two X \$100.

6. The addition is approximately $\$7,800 + \$200 = \$8,000$.

Tertiary Disk Filter		
Parameter	Value	Notes
Manufacturer(s)	Kruger	Duplex package system with plant water pump.
Current Capacity (gpm)	340	From Sheet 5 of record drawings.
Needed Capacity (gpm)	104	Average design flow due to equalization.

Tertiary Disk Filter Conclusions:

1. The unit is stand alone, 6 disk including redundancy. The smallest unit then was a 4 disk unit.
2. The purchase cost was \$95,000.
3. Purchase of a 4 disk unit would have been about \$80,000. Install cost is about the same.
4. The addition for this unit would be approximately \$15,000.

UV Disinfection		
Parameter	Value	Notes
Manufacturer(s)	Wedeco	Two cylinder system, each.
Current Capacity (gpm)	486	From Sheet 5 of record drawings.
Needed Capacity (gpm)	104	Average design flow due to equalization.

UV Disinfection System Conclusions:

1. Wedeco did not make a smaller unit. A competitor could have supplied a smaller suitable unit for about \$75,000 today (\$60,800 in 2006). Installation costs would have been approximately the same.
2. Savings would have been about \$24,000 for the UV system.

Biological Process Units		
Parameter	Value	Notes
Manufacturer(s)	MarWood	Duplex package system with plant water pump.
Current Capacity (MGD)	0.30	From Sheet 5 of record drawings.
Needed Capacity (MGD)	0.15	Average design flow due to equalization.
Needed Peak Capacity (gpm)	236	
Cost paid for essential equipment	\$631,982	Piping, aeration, odor control piping, mixers, etc.
Cost paid for half of remaining	\$123,100	Mostly precast sections and covers.
Cost Addition for base slab	\$59,924	

Biological Process Units Conclusions:

1. Cost for most WWTP components aside from piping is approximately half of price schedule, or addition of \$123,100
2. Estimated cost addition for biological system is $\$123,100 + \$55,924 = \$179,000$ considering future expansion.

Odor Control		
Parameter	Value	Notes
Capacity (CFM)	4,210	Included all components plus air from both trains.
Needed Capacity (CFM)	2,530	Removed air required for extra train including ASD.
Original woodchips (cf)	3,500	Cost was about \$15,000 for chips.
Blower (hp)	7.50	
Gravel (cf)	2,625	
Liner and filter fabric (sf)	1,540.00	
Masonry Walls (lf)	184.00	
Piping (lf)	360.00	

Odor Control System Conclusions

1. Size of the system can be reduced by 40%.
2. Cost addition for woodchips is approximately \$6,000
3. Cost addition for gravel is approximately $\$3/\text{cy} \times 40 = \116 .
4. Cost addition for walls is approximately $\$20/\text{sf} \times 5 \times 57.6 = \$5,760$
5. Cost addition for liners is approximately $616 \times \$1.5 = \924 .
6. Cost addition to lower to 5 hp blower is approximately \$1,500.
7. Cost addition for piping is approximately $144 \times \$7/\text{lf} = \1010 .
8. Total addition = $\$6,000 + \$116 + \$5760 + \$924 + \$1500 + \$1010 = \$15,300$.

Generator		
Parameter	Value	Notes
Size (KVA)	300	Included all components plus air from both trains.
Est Additional Power (KVA)	220	Removed air required for extra train including ASD.

Generator Conclusions

1. Size of generator could be reduced to 250 KVA
2. Contractor cost was \$55,870.
3. Cost addition of 250 KVA generator would be approximately \$5,000.

Building and Laboratory		
Parameter	Value	Notes
Original Size (SF)	\$2,900	
Original Price	\$245,000	From Felix Construction
Area Added (sf)	132	Approximate area for more blowers.

Building and Laboratory Conclusions

1. Approximately 132 sf additional was needed for extra blowers.
2. Cost addition assumed using original cost/original size would be $\$85 * 132 \text{ sf} = \$11,200$.
3. It is assumed that other parts of building could not be reduced (laboratory, restrooms, etc.)

Sitework		
Parameter	Value	Notes
Original Size (SF)	\$2,900	
Original Price	\$245,000	From Felix Construction
Area Added (sf)	132	Approximate area for more blowers.

Sitework and Security		
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1. The size of the lot would have not changed.
2. Fencing would not have changed significantly since walls were intended to screen WWTP components.
3. Contractor that performed work was same as was performing mass grading at subdivision, not WWTP.
4. Assume that the work would have reduced by about \$15,000 for paving (about 12 hrs at \$1,250/hr).

Note: Procedure is from: Wastewater Engineering, 3rd Edition (Metcalf & Eddy, 1991).

Calculation for Aerobic and Anoxic Volumes:	
Flow (MGD)	0.150
Influent BOD (mg/l)	400
Influent TN	40
Effluent Amm	1.50
Effluent TN	8.0
Temperature (Celsius)	18.0
Temperature (Fahrenheit)	64.4
Yh (mg VSS/BOD)	0.6
Decay Coefficient, kd (d) at 20 Celsius	0.06
Udn (mg NO3-N/mg VSS/d) at 20 Celsius	0.06
DO (mg/l)	2.0
MLSS, Xa (mg/l)	3,000
Theta c of conventional system (days)	11.2
Biodegradable fraction of VSS (f _{vss})	0.80
DO in the anoxic zone (mg/l)	0.05
Vaerobic (fraction aerobic)	0.78
Equation 1	
Overall Sludge Age (day)	14.4
Equation 2	
Decay Coefficient Corrected for Temp	0.051
Degradable fraction of MVLSS	0.699
Equation 3	
Total aerobic residence time (day)	0.658
Total aerobic residence time (hrs)	15.8
Equation 4	
Anoxic Residence Time (day)	0.186
Equation 5	
Udn corrected for temp and DO (mg/NO3-N/mg VSS/d)	0.052
Required Anoxic Residence Time (day)	0.197
Required Anoxic Residence Time (hrs)	4.72
Trial and Error Ratio	
Calculated Aerobic volume (gal)	1.06
Selected Aerobic volume (gal)	98,699
Calculated Anoxic volume (gal)	111,400
Selected Anoxic volume (gal)	29,523
Selected Anoxic volume (gal)	42,800

Check against BOD removal (Eq. 10)

Calculation for Mean Cell Residence Time for Conventional System	
Temp (Celsius)	18.0
Kinetic Coefficient (d)	0.50
Yield Coefficient for Nitrifiers (mg VSS/mg Ammonia)	0.20
Dissolved Oxygen (mg/l)	2.00
Dissolved Oxygen Half-Velocity Constant (mg/l)	1.30
Nitrifier Decay Rate kd (/day)	0.05
VSS Decay Coefficient kd (/day)	0.06
Safety Factor	4.00
Equation 6	
Kinetic Coefficient corrected for Temp and DO	0.407
Equation 7	
Maximum Rate of Substrate Utilization (/day)	2.03
Equation 8	
Required Aerated Mean Cell Residence Time (day)	11.22
Equation 9	
BOD Removal Rate (lb BOD/lb MLVSS/day)	0.271
Equation 10	
Aeration Time for BOD Removal (day)	0.492
Aeration Time for BOD Removal (hrs)	11.80
Aerobic Sludge Digester Calculations	
Overall Sludge Yield Coefficient	0.80
Assumed Sludge Thickness (mg/l)	10,000
Sludge Production (gpd)	4,800
Required Detention Time (day)	10
Min Aerobic Sludge Digester Size (gal)	48,000
Aerobic Sludge Digester Provided (gal)	42,800
Mixed Liquor Return Rate Calculations	
Required Reduction	20.0%
Required Ratio of Qm/Q	4.0
Resulting Qm (gpm)	417
Sludge Return and Wasting Flow Sizing	
Required Ratio of Qsludge/Q	1.3
Resulting Qsludge (gpm)	130

Addition of 5 years at 3%	1.16
Current customers	336
Flow per customer (gpd/home)	250
Average persons per home	2.50 Liberty Utilities standard
Approximate population	840
Flow per person (gpd/person)	100 Liberty Utilities standard
Population at 5 years	974
Flow at 5 years	97,400

Influent Pump Station		
Parameter	Value	Notes
Manufacturer(s)	Fairb-Morse	Duplex pump system.
Current Capacity (gpm)	700	From Sheet 5 of record drawings.
Needed Capacity (gpm)	161	Peak flow calculated using A.A.C.E301.D.1
Available Working Depth (ft)	2.87	From Sheet 5 of record drawings.
Available Working Volume (gal)	1,079	Based on 8 foot diameter wetwell.
Possible Working Volume (gal)	270	Based on 4 foot diameter wetwell.
Needed Wetwell Capacity (gal)	241	Based on Q*T/4, 6 minute cycle time (10 cycles per hour)
Required Head (ft)	23	Based on height differential and allowing for fittings and outlets.
Additional Concrete (cy)	5.11	Based on geometry of the basin.

Influent Pump Station Conclusions:

1. This wetwell could have been handled with a 4 foot diameter wetwell system.
2. That would have saved \$8,000 estimating addition of \$4,000 per pump based on research done with Means 2010.
3. \$24,196 was the cost of the pumps and controls, \$13,068 is equipment purchase, \$11,000 labor. Difference is about \$8,000.
4. Incremental additional cost of excavation for different wetwell sizes is negligible.
5. Cost of concrete difference is about \$1,500 based on \$284 per cubic yard.
6. Cost addition using 6" valves is about \$200 each, or \$800.
7. Total estimated addition is \$8,000+\$1,500+\$800 = \$10,300.

Headworks Screenings		
Parameter	Value	Notes
Manufacturer(s)	Lakeside	24" diameter fine screen (1/4" bar screen).
Current Capacity (gpm)	1,132	From Sheet 5 of record drawings.
Needed Capacity (gpm)	161	Calculated from current gpd/home and using A.A.C.E301.D.1

Headworks Screenings Conclusions:

1. Based on discussion with Lakeside, the purchase difference is about 20% lower for smaller (12") unit.
2. Original price of \$97,000. Purchase was \$62,300. Smallest unit would have been \$45,000. Install price would be about 95% of original install price (\$34,700).
3. Total addition would be about \$17,300+\$1,735 = \$19,000 based on conversation with Lakeside (4/12/15).

Flow Splitter Box		
Parameter	Value	Notes
Manufacturer(s)	MarWood	Stand alone box with three weirs.

Flow Splitter Box Conclusions:

1. This box would have been necessary regardless since redundancy is standard practice.
2. The box was the smallest the MarWood offered.
3. The only addition would have been the elimination of the third v-notch weir (about \$300).

Effluent Pump Station		
Parameter	Value	Notes
Manufacturer(s)	FlowTronex	Duplex package system with plant water pump.
Current Capacity (gpm)	347	From Sheet 5 of record drawings.
Needed Capacity (gpm)	104	Average design flow due to equalization.

Effluent Pump Station Conclusions:

1. Using inflation rates, the cost of the package would have been \$36,500.
2. Contractor cost for the package system was \$47,955. Approximately \$14,000 was for the pumps.
3. Reducing to 5 hp would have saved about \$9,800.
4. Per supplier, the labor for installation, controls, etc. would have been about the same.
5. Wetwell size would have been the same for plant water capacity.

6. Piping could have been reduced to 4" from 6". addition is mostly with valves, two X \$100.
 7. The cost addition is approximately \$9,800 + \$200 = \$10,000.

Tertiary Disk Filter		
Parameter	Value	Notes
Manufacturer(s)	Kruger	Duplex package system with plant water pump.
Current Capacity (gpm)	340	From Sheet 5 of record drawings.
Needed Capacity (gpm)	67	Average design flow due to equalization.

Tertiary Disk Filter Conclusions:

1. The original unit is stand alone, 6 disk including redundancy. The smallest unit then was a 4 disk unit.
2. The purchase cost was \$95,000.
3. A drum filter could have been used. Purchase price would be \$69,000. Installation cost difference is negligible.
4. The addition to use higher capacity disk filter is \$26,000.

UV Disinfection		
Parameter	Value	Notes
Manufacturer(s)	Wedeco	Two cylinder system, each.
Current Capacity (gpm)	486	From Sheet 5 of record drawings.
Needed Capacity (gpm)	67	Average design flow due to equalization.

UV Disinfection System Conclusions:

1. Another vendor could have provided a smaller unit that would have cost approximately \$40,500. Installation costs would have been similar.
2. Cost addition would have been approximately \$44,200.

Biological Process Units		
Parameter	Value	Notes
Manufacturer(s)	MarWood	Duplex package system with plant water pump.
Current Capacity (MGD)	0.30	From Sheet 5 of record drawings.
Needed Capacity (MGD)	0.0974	Average design flow due to equalization.
Needed Peak Capacity (gpm)	161	
Original MarWood mechanical	\$631,982	Piping, aeration, odor control piping, mixers, etc.
Cost addition for covers	\$107,200	\$166,000 for original covers for 6,000 sf, or \$28/sf.
Cost Addition for base slab	\$87,188	Needed slab estimate 80'X29'X16" thick, or about 115 cy
Blower requirement for air (hp)	44	
Est. ASD blower (hp, typ of 2)	20	

Biological Proecess Units Conclusions:

1. Recent cost of an installation that is similar in size included \$553,300 for MarWood supplied equipment. The difference to 2006 dollars is about 86%. Therefore the addition for MarWood equipment would be \$631,892 - \$475,800 = \$156,100.
2. New slab would be about 80'X29'X16" thick, or about 115 cy. Cost addition is about \$xx for slab.
3. Estimated cost addition for biological system is \$107,200+\$87,188+\$156,100 = \$350,500.

Odor Control		
Parameter	Value	Notes
Capacity (CFM)	4,210	Included all components plus air from both trains.
Needed Capacity (CFM)	1,850	Foul air reduced for smaller treatment units.
Woodchips (cf)	3,500	Cost was about \$15,000 for chips.
Blower (hp)	7.50	
Gravel (cf)	2,625	
Liner and filter fabric (sf)	1,540.00	
Masonry Walls (lf)	184.00	
Piping (lf)	360.00	

Odor Control System Conclusions

1. Size of odor control system could be 44% of size constructed.
2. Cost addition for woodchips is approximately \$8,400
3. Cost addition for gravel is approximately \$3/cy*46 = \$137.
4. Cost addition for walls is approximately \$20/sf*5*81 = \$8,064
5. Cost addition for liners is approximately 827*\$1.5 = \$1,240.
6. Cost addition to increase from 3 hp blower is approximately \$3,300.
7. Cost addition for piping is approximately 144*\$9/lf = \$1300.

8. Total addition = \$8,400+\$137+\$8,064+\$1,240+\$3,300+\$1,300 = \$22,400.

Generator		
Parameter	Value	Notes
Size (KVA)	300	Included all components plus air from both trains.
Est Additional Power (KVA)	220	Removed air required for extra train including ASD.

Generator Conclusions

1. Size of generator could be reduced to 200 KVA
2. Contractor cost was \$55,870.
3. Cost of 250 KVA generator would be approximately \$12,000.

Building and Laboratory		
Parameter	Value	Notes
Original Size (SF)	\$2,900	
Original Price	\$245,000	From Felix Construction
Area Added (sf)	132	Approximate area for more blowers.

Building and Laboratory Conclusions

1. Approximately 132 sf additional was needed for extra blowers.
2. Cost addition assumed using original cost/original size would be \$85 * 132 sf = \$11,200.
3. It is assumed that other parts of building could not be reduced (laboratory, restrooms, etc.)

Sitework and Security		
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1. The size of the lot would have not changed.
2. Fencing would not have changed significantly since walls were intended to screen WWTP components.
3. Contractor that performed work was same as was performing mass grading at subdivision, not WWTP.
4. Assume that the work would have reduced by about \$20,000 for paving (about 16 hrs at \$1,250/hr).

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7

8 **BEFORE THE ARIZONA CORPORATION COMMISSION**
9

10 IN THE MATTER OF THE APPLICATION
11 OF LIBERTY UTILITIES (ENTRADA DEL
ORO SEWER) CORP., AN ARIZONA
12 CORPORATION, FOR A
13 DETERMINATION OF THE FAIR VALUE
14 OF ITS UTILITY PLANTS AND
PROPERTY AND FOR INCREASES IN ITS
15 WASTEWATER RATES AND CHARGES
FOR UTILITY SERVICE BASED
THEREON.

DOCKET NO: SW-04316A-15-_____

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17
18 **DIRECT TESTIMONY OF**
19 **WILLIAM R. KILLEEN**
20

21 **March 3, 2016**
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1 **I. INTRODUCTION AND PURPOSE OF TESTIMONY.**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is William R. Killeen. My business address is 345 Davis Road, Oakville,
4 Ontario, Canada, L6J 2X1.

5 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

6 A. I am the Director of Regulatory Operations for Liberty Utilities (Canada) Corp.
7 ("Liberty Utilities Canada"). Liberty Utilities Canada is the ultimate parent
8 company of Liberty Utilities Co. ("Liberty Utilities"). Liberty Utilities Canada is a
9 wholly owned subsidiary of Algonquin Power & Utilities Corp. ("APUC").
10 Applicant Liberty Utilities (Entrada Del Oro Sewer) Corp. ("Liberty EDO") is a
11 wholly owned subsidiary of Liberty Utilities (Sub) Corp. Liberty Utilities (Sub)
12 Corp. is a wholly owned subsidiary of Liberty Utilities Co.

13 As the Director of Regulatory Operations, I am responsible for strategy
14 development and management of regulatory affairs for all of Liberty Utilities'
15 regulated utilities currently providing water, wastewater, electric and gas utility
16 services in Arizona, Arkansas, California, Georgia, Illinois, Iowa, Massachusetts,
17 Missouri, Montana, New Hampshire and Texas. Liberty Utilities is continuing to
18 expand its regulated utility footprint and holdings throughout the United States.
19 For example, Liberty Utilities recently acquired three new regulated water
20 utilities—two in California and one in Montana.¹

21 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND**
22 **PROFESSIONAL EXPERIENCE.**

23 A. I earned a Bachelor of Engineering Science (Chemical) degree from the University
24 of Western Ontario (now Western University) in 1985. I also earned a Master's
25

26 ¹ Those acquisitions closed on January 8, 2016.

1 degree in Business Administration from the Ivey School of Business at Western
2 University in 1989.

3 I have 26 years of professional experience in the energy and utilities
4 industries in the areas of regulation, supply, operations and customer service.
5 I have worked at natural gas and electric utilities, as well as in consulting,
6 marketing, and government positions. Early in my career, I was employed by
7 Union Gas Limited, a major natural gas utility serving over 1.4 million customers
8 in Ontario, Canada, for twelve years in varying capacities, including regulatory and
9 supply.

10 Prior to joining Liberty Utilities in February 2014, I was employed by
11 Enersource Hydro Mississauga Inc., a major electric utility serving the City of
12 Mississauga, Ontario, for three years as Manager, Regulatory Affairs. In between
13 my employment at these two large utilities, I was employed at various other
14 companies, always retaining responsibility for oversight of regulatory affairs,
15 typically in Ontario or eastern Canada. These companies include Engage Energy
16 Canada Inc., Direct Energy as Manager, Regulatory Affairs and a consulting
17 company, ECNG Energy LP, as Director, Supply and Regulatory Affairs for eight
18 years. Following ECNG, I spent a brief tenure within the Ministry of Energy of the
19 Ontario Government. My Curriculum Vitae is attached as **Exhibit WRK-DT1**.

20 **Q. DO YOU HAVE ANY PROFESSIONAL DESIGNATIONS?**

21 A. Yes. I am a licensed Professional Engineer in the Province of Ontario and a
22 member of the Ontario Society of Professional Engineers.

23 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS OR ANY OTHER**
24 **COMMISSION?**

25 A. My direct and rebuttal testimonies were admitted in evidence in the Liberty
26 Utilities (Black Mountain Sewer) Corp. rate case, Docket Nos. SW-02361A-15-

1 0206 and SW-02361A-15-0207 (consolidated). My direct testimony has been
2 prefiled in the Liberty Utilities (Bella Vista Water) Corp. and Liberty Utilities (Rio
3 Rico Water & Sewer) Corp. rate cases, Docket Nos. W-02465A-15-0367 and WS-
4 02676A-15-0368 (consolidated). I have also testified in a number of gas and
5 electric utility pricing cases and facility approval cases before the Ontario Energy
6 Board. Additionally, I testified in a rate case before the Arkansas Public Service
7 Commission (Docket No. 14-020-U) on behalf of Liberty Utilities (Pine Bluff
8 Water) Inc.

9 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?**

10 A. The purpose of my direct testimony is to support Liberty EDO's request for new
11 rates by addressing the corporate costs and allocation methods employed by all
12 companies within the APUC organization. In my testimony, I explain the APUC
13 and Liberty Utilities corporate cost allocation model and the benefits of our shared
14 service model to Liberty EDO and the other regulated utilities operated by Liberty
15 Utilities.

16 **II. OVERVIEW OF LIBERTY UTILITIES' BUSINESS MODEL.**

17 **Q. WILL YOU PLEASE SUMMARIZE THE LIBERTY UTILITIES BUSINESS**
18 **MODEL?**

19 A. As mentioned above, APUC serves as the overall corporate parent and has two
20 major operating subsidiaries, Algonquin Power Co. ("APCo") and Liberty Utilities.
21 APCo is an unregulated entity that provides renewable power generation from
22 facilities owned throughout the United States and Canada. Liberty Utilities owns
23 regulated water, wastewater, gas and electric utilities in ten states.

24 **Q. PLEASE EXPLAIN THE LIBERTY UTILITIES SHARED SERVICES AND**
25 **CORPORATE COST ALLOCATION MODEL.**

26 A. Two corporate groups provide shared services to entities within the APUC

1 organizational structure, including Liberty Utilities and its regulated utilities.
2 One is APUC, and the other is the shared services department within Liberty
3 Utilities Canada.

4 **Q. WHAT SHARED SERVICES DOES APUC PROVIDE?**

5 A. APUC is structured as a publicly traded holding company and provides substantial
6 benefits to its regulated utilities and generation facilities through access to capital
7 markets. As the ultimate corporate parent, APUC also provides financial, strategic
8 management, corporate governance, administrative and support services to Liberty
9 Utilities and APCo.

10 APUC's Financing Services involve selling units to public investors in order
11 to generate the funding and capital necessary (be it short term or long term funding,
12 including equity and debt) for Liberty Utilities, as well as providing legal services
13 in connection with the issuance of public debt. In connection with the provision of
14 Financing Services, APUC incurs the following types of costs: (i) strategic
15 management costs (board of director, third-party legal services, accounting
16 services, tax planning and filings, insurance, and required auditing); (ii) capital
17 access costs (communications, investor relations, trustee fees, escrow and transfer
18 agent fees); (iii) financial control costs (audit and tax expenses); and
19 (iv) administrative (rent, depreciation, general office costs).² Non-labor costs,
20 including corporate capital, are pooled and allocated to Liberty Utilities and APCo
21 using the "multi-factor" method summarized in Table 1 of the APUC Cost
22 Allocation Manual ("CAM"). Without question, the services provided by APUC
23 are necessary for Liberty Utilities and its regulated subsidiaries to have access to
24 capital markets for capital projects and operations.

25 ² Appendix 2 of the APUC Cost Allocation Manual or "CAM" referenced below provides
26 a more detailed discussion of the costs incurred by APUC.

1 **Q. WHAT TYPES OF SHARED SERVICES DOES LIBERTY UTILITIES**
2 **CANADA PROVIDE?**

3 A. Liberty Utilities Canada provides Liberty Utilities (and its regulated utilities) with
4 the following services: accounting, administration, corporate finance, human
5 resources (including training and development), information technology, rates and
6 regulatory affairs, environment, health and safety, and security, customer service,
7 procurement, risk management, legal and utility planning. Specific examples of
8 these services include: (i) budgeting, forecasting, and financial reporting services
9 including preparation of reports and preservation of records, cash management
10 (including electronic fund transfers, cash receipts processing, managing short-term
11 borrowings and investments with third parties); (ii) development of customer
12 service policies and procedures; (iii) development of human resource policies and
13 procedures; (iv) selection of information systems and equipment for accounting,
14 engineering, administration, customer service, emergency restoration and other
15 functions and implementation thereof; (v) development, placement and
16 administration of insurance coverages and employee benefit programs, including
17 group insurance and retirement annuities, property inspections and valuations for
18 insurance; (vi) purchasing services including preparation and analysis of product
19 specifications, requests for proposals and similar solicitations, and vendor and
20 vendor-product evaluations; and (vii) development of regulatory strategy.

21 Liberty Utilities Canada will direct charge or assign costs that can be
22 directly attributable to a specific utility. Those costs include direct labor and direct
23 non-labor costs. Indirect Liberty Utilities Canada costs, however, cannot be
24 directly attributed to an individual utility. Within the formal organizational
25 structure, Liberty Utilities Canada provides certain services that benefit the entire
26 company, i.e., both Liberty Utilities and APCo. Those indirect business services

1 and costs from these shared service functions are allocated between APCo and
2 Liberty Utilities using the “multi-factor” methodology shown in Table 4 of the
3 CAM. Those factors are designed to closely align the costs with the driver of the
4 activity. These shared service functions include risk management, information
5 technology, human resources, training, facilities and building rent, financial
6 reporting and administration, environmental health safety and security, legal costs,
7 treasury, internal auditing, procurement, and communications.

8 Once those indirect costs are allocated between APCo and Liberty Utilities,
9 the indirect labor and indirect non-labor costs, including capital costs, attributable
10 to Liberty Utilities are then reallocated to its regulated utilities using the Utility
11 Four Factor Methodology set forth in Table 2 of the CAM:

12
13 **CAM Table 2: Utility Four Factor Methodology**

Factor	Weight
Utility Plant	25%
Customer Count	25%
Non-Labor Expenses	25%
Labor	25%
Total	100%

14
15
16
17
18
19 **Q. HOW DOES LIBERTY UTILITIES SERVICE CORP. FIT INTO THIS**
20 **BUSINESS MODEL?**

21 A. Liberty Utilities Service Corp. (“LUSC”) is a wholly owned subsidiary of Liberty
22 Utilities. All United States regulated utility employees are employed by LUSC.
23 The purpose of LUSC is to streamline administration of payroll across the United
24 States-based companies. All employee costs, such as salaries, benefits, insurance,
25 etc. are paid by LUSC and direct charged to the extent possible to the regulated
26 utility for which the employee performs dedicated work. In situations where time

1 sheets do not allow direct charging of LUSC costs (which is expected to be an
2 infrequent occurrence), those indirect costs are allocated using the allocation
3 methodology set forth in Table 5 of the CAM.

4 **Q. HOW DO LIBERTY EDO AND THE OTHER REGULATED UTILITIES IN**
5 **ARIZONA BENEFIT FROM THIS SHARED-SERVICES MODEL?**

6 A. The Liberty Utilities shared services business model serves a significant and very
7 important role for the Liberty EDO and its sister companies in Arizona.
8 The benefits of this shared service model are significant, including:

- 9 1. **Access to Skilled Strategic Management.** This means Liberty EDO
10 enjoys access to wide ranging expertise and resources that are typically not
11 available to small utilities with less than 350 customers. That is a direct
12 result of the nationwide utility footprint of Liberty Utilities and our shared
13 services model.
- 14 2. **Controls and Processes.** Through this business model, controls and
15 processes are in place to ensure that accounting methodologies are
16 consistent with generally accepted accounting principles and fully adhere to
17 Sarbanes-Oxley compliance and other appropriate internal controls.
18 That means Liberty EDO benefits from sound accounting, capital
19 investment and operational expertise.
- 20 3. **Economies of Scale.** By sharing regional resources with other utilities,
21 Liberty EDO enjoys the benefits of lower overall cost structures while at the
22 same time maintaining a local flavor in its day-to-day operations and
23 customer contact. Further, as Liberty Utilities grows, its overall costs will
24 be allocated over a larger base of utilities, lowering the cost of shared
25 services to each subsidiary utility, including Liberty EDO.
26

1 4. Access to Capital. As discussed earlier, APUC is the entity that is traded
2 on the Toronto Stock Exchange and ensures that Liberty EDO has
3 uninterrupted access to capital. The APUC family (including Liberty
4 Utilities) has access to over \$600M in credit facilities and, from 2010-2014,
5 raised over \$1.7B in capital through the issuance of long-term debt and
6 equity. The capital expenditure budget for 2015 was \$113M for Liberty
7 Utilities.

8 **Q. AND THESE APUC AND LUC COSTS ARE NECESSARY AND**
9 **BENEFICIAL?**

10 A. Yes. Among other things, many of these costs are requirements of APUC being a
11 publicly traded entity on the Toronto Stock Exchange (TSX). As a publicly traded
12 entity, APUC must issue certain communications subject to the TSX's rules and
13 regulations. For example, Section 714 of the TSX Company Manual states "TSX
14 may delist securities of a listed issuer that has failed to comply with the TSX's
15 Timely Disclosure Policy... or with disclosure requirements under any securities
16 law to which the issuer is subject." Additionally, section 406 of the TSX Company
17 Manual in part states "It is a cornerstone policy of the Exchange that all persons
18 investing in securities listed on the Exchange have equal access to information that
19 may affect their investment decisions.... Companies whose securities are listed on
20 the Exchange are legally obligated to comply with the provisions on timely
21 disclosure..." Finally, Ontario Securities Commission National Policy 51-201
22 states in Section 4.5 "Companies who do not comply with an exchange's
23 requirements could find themselves subject to an administrative proceeding before
24 a provincial securities regulator."

25 These requirements and related costs are no different than publicly traded
26 companies on the New York Stock Exchange (NYSE), whose Listed Company

1 Manual, Section 202.05 states "A listed company is expected to release quickly to
2 the public any news or information which might reasonably be expected to
3 materially affect the market for its securities. This is one of the most important and
4 fundamental purposes of the listing agreement which the company enters into with
5 the Exchange." Put simply, the APUC and LUC costs are the same types of costs
6 that entities traded on the NYSE are required to incur. These costs are a necessary
7 and unavoidable part of a publicly traded entity's cost of doing business. APUC's
8 presence on the TSX is the means by which Liberty Utilities obtains capital for
9 investment and I do not think anyone disputes that APUC's access to capital is a
10 benefit to Liberty EDO and its customers in Arizona. If we need access to capital,
11 then we must incur those costs to obtain the needed capital, and those costs should
12 be included if we show they are required. The underlying record illustrates that
13 those costs are required. Copies of these pertinent provisions of the TSX and
14 NYSE rules are attached as **Exhibit WRK-DT2**.

15 **III. COST ALLOCATION MANUAL.**

16 **Q. YOU HAVE REFERRED TO A COST ALLOCATION MANUAL OR CAM**
17 **THAT GOVERNS THE LIBERTY UTILITIES BUSINESS MODEL.**
18 **CAN YOU PLEASE DESCRIBE THE CAM?**

19 **A.** Yes. Our cost allocation methodologies and processes are set forth in the
20 Algonquin Power & Utilities Corp. Cost Allocation Manual or CAM, which is
21 attached as **Exhibit WRK-DT3**. Shared services and corporate costs are allocated
22 to Liberty EDO in accordance with the methodologies and processes set forth in
23 the CAM. Specifically, the CAM outlines the methods of direct charge and cost
24 allocations between (1) APUC and its affiliates, APCo and Liberty Utilities;
25 (2) Liberty Utilities Canada and APCo/Liberty Utilities; (3) Liberty Utilities and its
26 regulated utility subsidiaries; and (4) LUSC and its affiliates.

1 The CAM is based on the National Association of Regulatory Utility
2 Commissions ("NARUC") Guidelines for Cost Allocations and Affiliate
3 Transactions. The NARUC Guidelines are attached as Appendix 1 to the CAM.
4 The fundamental premise of those guidelines and the CAM is to direct charge costs
5 as much as possible and to use reasonable allocation factors where allocation of
6 indirect costs is necessary and direct charging is not possible.

7 **Q. CAN YOU CITE THE KEY PRINCIPLES FROM THE NARUC**
8 **GUIDELINES TO WHICH YOU ARE REFERRING?**

9 A. Yes. The CAM utilizes the following "Cost Allocation Principles" as stated in the
10 NARUC Guidelines:

- 11 1. To the maximum extent practicable, in consideration of administrative costs,
12 costs should be collected and classified on a direct basis for each asset,
13 service or product provided (NARUC Guidelines at 2, § B.1).
- 14 2. The general method for charging indirect costs should be on a fully
15 allocated cost basis. Under appropriate circumstances, regulatory
16 authorities may consider incremental cost, prevailing market pricing or other
17 methods for allocating costs and pricing transactions among affiliates
18 (NARUC Guidelines at 2, § B.2).
- 19 3. To the extent possible, all direct and allocated costs between regulated and
20 non-regulated services and products should be traceable on the books of the
21 applicable regulated utility to the applicable Uniform System of Accounts.
22 Documentation should be made available to the appropriate regulatory
23 authority upon request regarding transactions between the regulated utility
24 and its affiliates (NARUC Guidelines at 2, § B.3).
- 25 4. The allocation methods should apply to the regulated entity's affiliates in
26 order to prevent subsidization from, and ensure equitable cost sharing

1 among, the regulated entity and its affiliates, and vice versa (NARUC
2 Guidelines at 2-3, § B.4).

3 5. All costs should be classified to services or products, which, by their very
4 nature, are regulated, non-regulated, or common to both (NARUC
5 Guidelines at 3, § B.5).

6 6. The primary cost driver of common costs, or a relevant proxy in the absence
7 of a primary cost driver, should be identified and used to allocate the cost
8 between regulated and non-regulated services or products (NARUC
9 Guidelines at 3, § B.6).

10 7. The indirect costs of each business unit, including the allocated costs of
11 shared services, should be spread to the services or products to which they
12 relate using relevant cost allocators (NARUC Guidelines at 3, § B.7).

13 Our CAM follows these cost allocation principles and, as a result, provides for the
14 appropriate allocation of prudently incurred corporate costs and shared services to
15 Liberty EDO.

16 **Q. CAN YOU BRIEFLY EXPLAIN HOW THE ALLOCATION PROCESS**
17 **WORKS FOR APUC CORPORATE COSTS AND SHARED SERVICES?**

18 A. Yes. APUC will charge costs that can be directly attributable to a specific utility to
19 that utility. APUC charges labor rates for these shared services at cost.
20 These labor costs are charged directly to a specific utility based on timesheets.
21 If such labor is for the benefit of all subsidiaries and, therefore, not directly
22 chargeable to a single entity, then those indirect labor costs are allocated using the
23 methodologies in the CAM. To start, indirect non-labor and indirect labor costs
24 incurred by APUC, including corporate capital, are pooled and allocated to Liberty
25 Utilities Canada and APCo using the methodology in Table 1 of the CAM.
26 Once those costs are allocated between Liberty Utilities Canada and APCo, the

1 APUC costs allocated to Liberty Utilities Canada are then allocated to the regulated
2 utilities under Liberty Utilities using the Four Factor Methodology set forth in
3 Table 2 of the CAM (as set forth above).

4 **Q. CAN YOU BRIEFLY EXPLAIN HOW THE ALLOCATION PROCESS**
5 **WORKS FOR LIBERTY UTILITIES CANADA CORPORATE COSTS AND**
6 **SHARED SERVICES?**

7 A. Liberty Utilities Canada will charge costs that can be directly attributable to a
8 specific utility to that utility. Those costs include direct labor and direct non-labor
9 costs. Any remaining indirect corporate costs incurred by Liberty Utilities Canada
10 that can't be directly attributed or billed to an individual utility are then allocated
11 using the Four Factor Method in Table 2 of the CAM.

12 Due to an internal restructuring, Liberty Utilities Canada, through a shared
13 services department, now provides certain services to both Liberty Utilities (and its
14 regulated utilities) and APCo. Those shared services are as follows: treasury;
15 financial reporting and administration; internal audit; risk management; training;
16 information technology; human resources; environmental, health, safety, and
17 security; legal; procurement; and communication. These services were previously
18 within APUC prior to the restructuring. As noted above, costs will continue to be
19 directly charged where possible.

20 When shared services costs cannot be directly assigned to a specific entity
21 such as either APCo or Liberty Utilities, indirect costs incurred by the shared
22 services department within Liberty Utilities Canada first will be allocated between
23 Liberty Utilities and APCo using the cost drivers and methodologies shown in
24 Table 4 of the CAM. Once those indirect corporate costs are allocated between
25 APCo and Liberty Utilities, the resulting indirect charges of Liberty Utilities
26 Canada that are allocated to Liberty Utilities by the shared services department are

1 then reallocated to the regulated utilities using the Four Factor Methodology noted
2 above. Put simply, Liberty Utilities Canada allocates its indirect labor and indirect
3 non-labor costs, including capital costs, to its regulated utilities using the Four
4 Factor Methodology noted above to allocate those costs incurred for the benefit of
5 all of its regulated utilities. Those indirect costs are allocated to the Liberty
6 Utilities regulated entities from the shared services departments within Liberty
7 Utilities Canada, using the Four Factor Utility Methodology (utility plant, customer
8 count, non-labor expenses, and labor). Each factor is equally weighted to more
9 accurately reflect the size and scope of each utility.

10 **Q. CAN YOU PLEASE DESCRIBE HOW THE CAM IS USED TO ASSIGN**
11 **AND ALLOCATE COSTS TO LIBERTY EDO?**

12 A. Yes, under the CAM, a utility incurs costs in one of three ways: (1) Direct Costs –
13 costs incurred directly by a local operating company for its own purposes;
14 (2) Assigned costs – costs incurred by one company for the exclusive benefit of
15 one or more other companies, and which are directly charged to the company or
16 companies that specifically benefited; and (3) Allocated costs – costs incurred by
17 one company that are for the benefit of either (a) all of the Algonquin companies or
18 (b) all of the regulated Liberty Utilities companies. Allocated costs are charged to
19 the benefited companies using a methodology and set of logical allocation factors
20 that establish a reasonable link between cost causation and cost recovery.

21 **Q. CAN YOU PROVIDE EXAMPLES?**

22 A. Yes. First, costs that are incurred by Liberty EDO as part of providing utility
23 services in Arizona are direct costs, and thus are neither assigned nor allocated
24 under the CAM. Second, costs that are incurred by APUC, LUC, or LUSC for the
25 exclusive benefit of any utility's operations are directly assigned. Third, costs that
26 are incurred by APUC, LUC or LUSC that benefit other companies within the

1 Algonquin corporate family are allocated on a rational basis that logically links
2 cost causation to cost recovery using a two-step process.

3 **Q. WHAT IS THAT TWO-STEP ALLOCATION PROCESS?**

4 A. The CAM addresses those assigned and allocated costs under the following two-
5 step process. Boiled down, all allocated costs have two levels of allocation filters
6 applied. The first level is designed to appropriately separate common costs
7 between the regulated and the unregulated businesses. The second level is
8 designed to appropriately allocate the costs that have been allocated to the group of
9 regulated utilities to each of the individual regulated utilities.

10 **Q. PLEASE ILLUSTRATE THESE CORPORATE COST ALLOCATION**
11 **METHODOLOGIES.**

12 A. As noted above, Liberty EDO can be assigned and/or allocated costs from APUC,
13 LUC and LUSC. I provide an overview of the methodology for each cost center in
14 the following paragraphs.

15 **Q. LET'S START WITH APUC.**

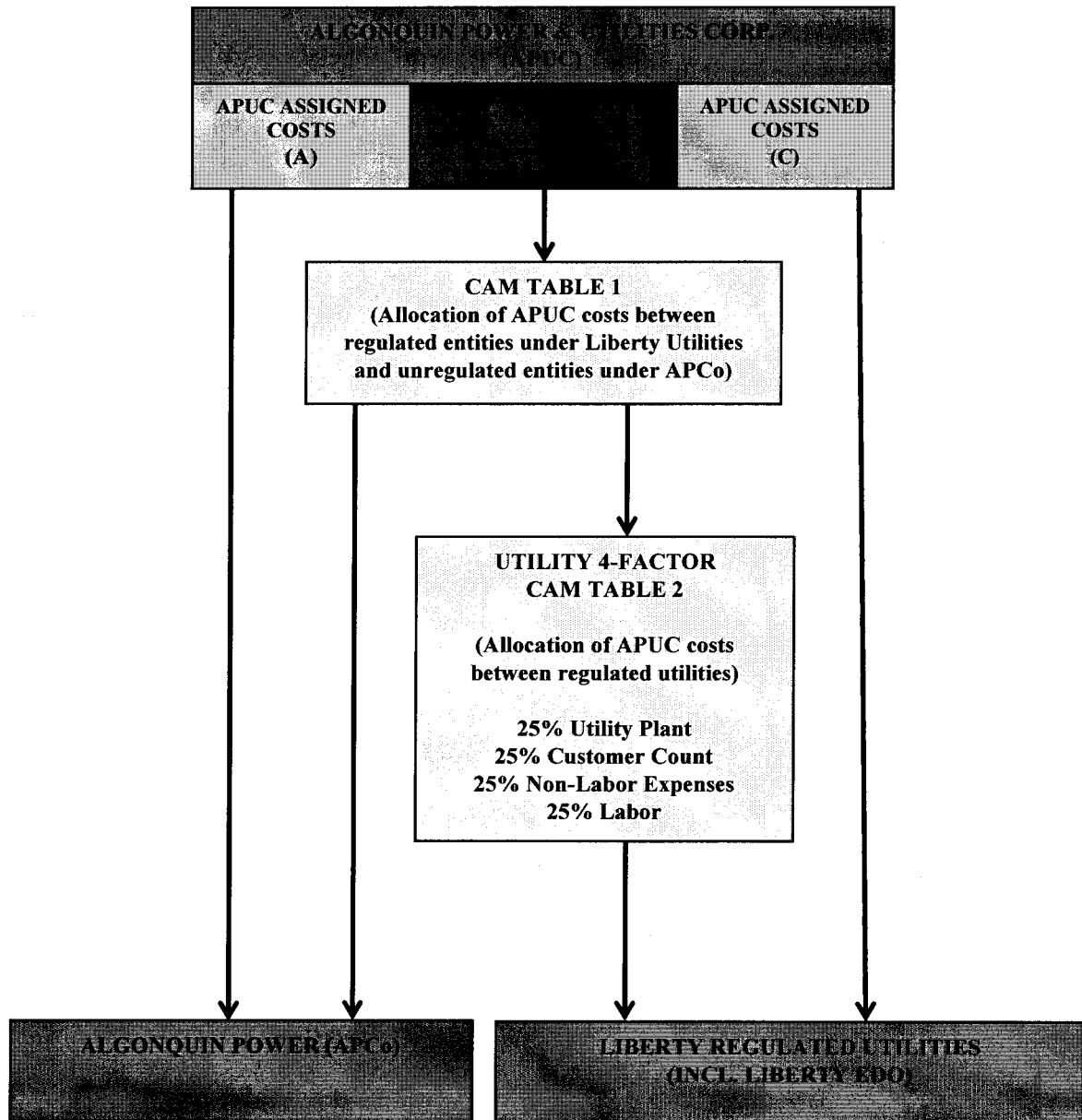
16 A. As noted below on Appendix 1 (Illustration of CAM Allocation of APUC Services)
17 and as described in §3.1 of the CAM, APUC incurs three types of costs that are
18 allocated to its direct and indirect subsidiaries. The first type is APUC's costs that
19 directly benefit a particular unregulated company. Those "Assigned Costs" on
20 Appendix 1 are directly assigned to that unregulated company (APCo).
21 The second type is APUC's Assigned Costs that directly benefit a particular
22 regulated company. Those costs are directly assigned to that regulated company.
23 The third type is APUC's remaining "Allocated Costs" that benefit the entire
24 enterprise (both regulated and unregulated), which are allocated between regulated
25 and unregulated company groups under CAM Table 1. CAM Table 1 specifies:
26 (a) each type of cost incurred by APUC that is to be allocated between regulated

1 and unregulated parts of the business; (b) the factors used to allocate each type of
2 cost between regulated and unregulated activity; (c) the rationale for selecting the
3 factors that are used for allocation; and (d) examples of the specific allocated costs.

4 Once those Allocated Costs are allocated between APCo (unregulated) and
5 Liberty Utilities (regulated) using CAM Table 1, the total of those Allocated Costs
6 allocated to Liberty Utilities is then reallocated to individual utilities using the
7 Four-Factor Utility Allocation Methodology set forth in CAM Table 2.

8 Appendix 1 below labeled "Illustration of CAM Allocation of APUC
9 Services" provides a flow chart illustration of how the APUC direct and indirect
10 costs are allocated under the CAM. The APUC cost allocations for Liberty EDO
11 here follow this allocation methodology and process.

**APPENDIX 1:
ILLUSTRATION OF CAM ALLOCATION OF APUC SERVICES**



- (A): Costs that are directly assigned and charged to unregulated entities (APCo).
 (B): Costs that benefit both unregulated entities and regulated utilities.
 (C): Costs that are directly assigned and charged to regulated utilities (Liberty Utilities).

1 Q. THANK YOU. CAN YOU PLEASE ILLUSTRATE THE LIBERTY
2 UTILITIES CANADA ALLOCATIONS?

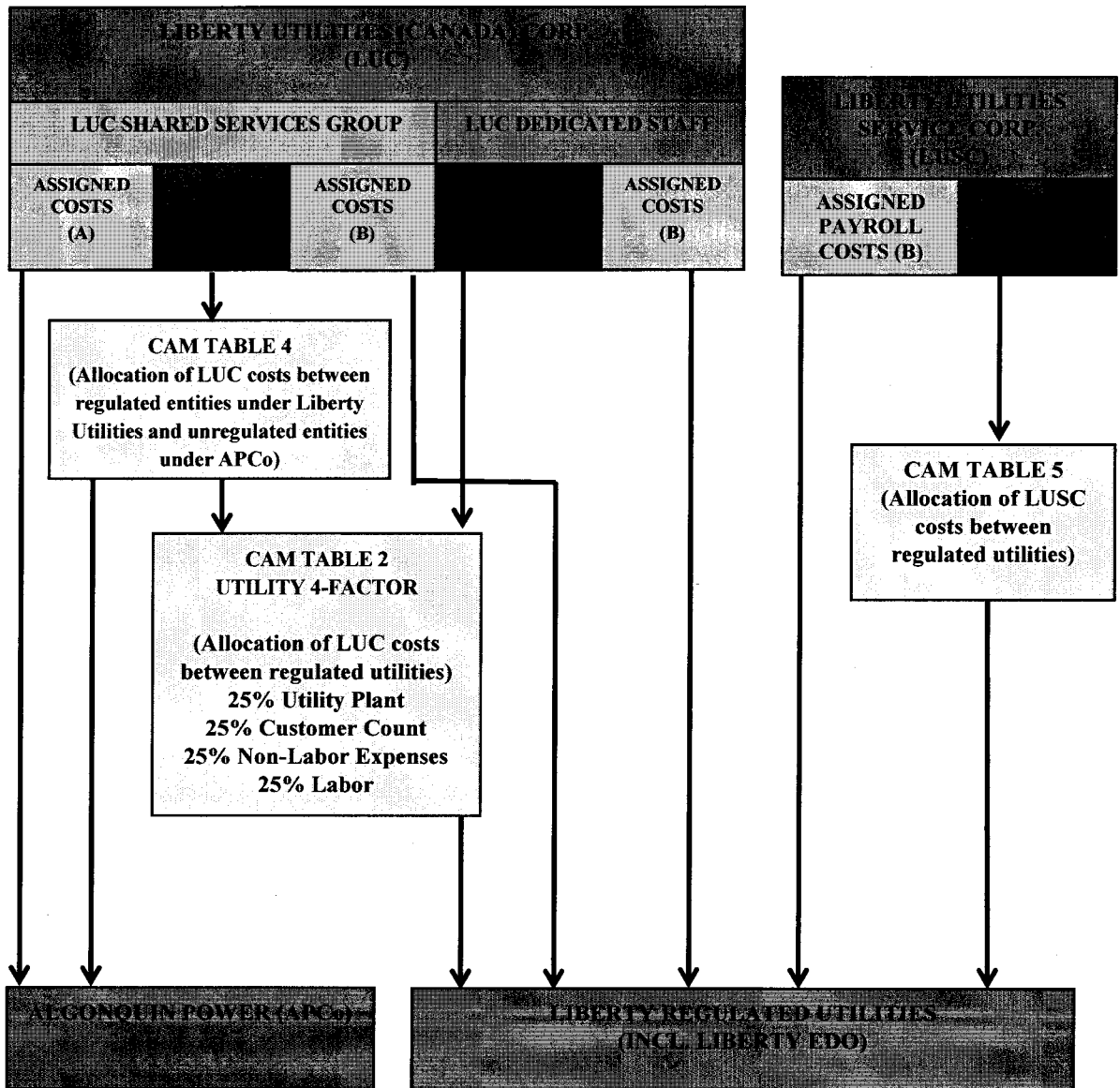
3 A. As illustrated in Appendix 2 below and as described in section 4 of the CAM,
4 Liberty Utilities Canada incurs three types of costs that are passed on to other
5 direct or indirect subsidiaries of APUC. The first type is Assigned Costs that
6 directly benefit a particular regulated company, which are directly assigned to that
7 regulated company. The second type is Shared Services Costs that benefit both the
8 regulated group of companies and the unregulated group of companies.
9 Those Shared Services Costs are allocated between the two groups under the
10 methodology set forth in CAM Table 4. CAM Table 4 includes: (a) each type of
11 cost incurred by Liberty Utilities Canada that is to be allocated between regulated
12 and unregulated parts of the business; (b) the factors used to allocate each type of
13 cost between regulated and unregulated activity; (c) the rationale for selecting the
14 factors that are used for allocation; and (d) examples of the specific allocated costs.
15 In turn, the Shared Services costs that are allocated to the regulated companies as a
16 group are then reallocated to individual companies using the four-factor utility
17 allocation methodology set forth in CAM Table 2, resulting in utility-specific
18 allocated charges from Liberty Utilities Canada.

19 The third type of costs allocated by Liberty Utilities Canada is Allocated
20 Costs that benefit all of the regulated companies, which are allocated using the
21 four-factor method in CAM Table 2. Appendix 2 below illustrates the cost
22 allocation methodology relating to the direct and indirect services provided and
23 costs incurred by Liberty Utilities Canada for the benefit of Liberty EDO. The
24 Liberty Utilities Canada cost allocations for Liberty EDO follow this allocation
25 methodology and process.

26

APPENDIX 2:

ILLUSTRATION OF CAM ALLOCATION OF LUC AND LUSC SERVICES



- (A): Costs that are directly assigned to unregulated companies.
 (B): Costs that are directly assigned to regulated companies.
 (C): Costs that benefit both unregulated and regulated companies and operations.
 (D): Costs that benefit all regulated companies and operations.

1 **Q. FINALLY, CAN YOU ILLUSTRATE HOW THE ALLOCATION PROCESS**
2 **WORKS FOR LUSC COSTS?**

3 A. As illustrated in Appendix 2 above and as described in section 5 of the CAM,
4 LUSC can incur two types of costs that can be passed on to regulated utilities of
5 Liberty Utilities. The first type is LUSC Assigned Payroll Costs that directly
6 benefit a particular regulated company. Those Assigned Payroll Costs are directly
7 assigned to that regulated company. Currently, payroll expenses for all regulated
8 operating company employees are incurred by LUSC, and those utility-specific
9 expenses are directly assigned to each operating utility.³

10 The second type of cost that may be incurred by LUSC is Allocated Costs
11 that benefit all of the regulated operating companies. LUSC does not provide
12 indirect services to any unregulated entity, so there is no reason to allocate these
13 costs between APCo and Liberty Utilities. As such, the only allocation by LUSC
14 occurs under CAM Table 5 between the regulated utilities of Liberty Utilities.
15 Currently, LUSC is not incurring any indirect costs and LUSC has not allocated
16 any Allocated Costs to Liberty EDO. I only mention it here because if those costs
17 are incurred by LUSC in the future, those costs would be allocated to Liberty EDO
18 under CAM Table 5.

19 **Q. HOW WOULD YOU SUMMARIZE APUC'S COST ALLOCATION**
20 **METHODOLOGIES AS APPLIED TO LIBERTY EDO UNDER THE CAM?**

21 A. Ultimately, our cost allocation process applies a reasonable and common sense
22 approach. To start, costs are assigned and allocated from the three cost centers
23 (APUC, LUC and LUSC) each month. Where there is a factual basis to do so,
24

25 ³ Due to the recent nature of the Park transaction closure on January 8, 2016, the
26 employees of the two water utilities in CA, and the water utility in MT have not migrated
into LUSC as of this filing date, but are expected to transition later in 2016.

1 costs incurred specifically for Liberty EDO are directly assigned to Liberty EDO.
2 The cost allocation methodologies are applied only after all direct charges have
3 been assigned to Liberty EDO and the other APUC subsidiaries. The allocations
4 deal only with remaining costs that are not specific to a particular operating entity.
5 Cost allocations involve a two-step approach. The first step is to split all costs
6 between the unregulated businesses (APCo) and the regulated businesses (Liberty
7 Utilities and its subsidiaries). The second step is to allocate the costs that are
8 attributable to the regulated utilities among those regulated entities, including
9 Liberty EDO, to determine utility-specific charges. All of those costs are allocated
10 among the regulated utilities to determine utility-specific charges.

11 **Q. WHEN WAS THE CAM MOST RECENTLY UPDATED?**

12 A. The current methodology within the CAM became effective January 1, 2014. The
13 CAM was updated in July 2015 to reflect the growth of the companies within the
14 APUC group of companies and Liberty Utilities. The 2015 changes were
15 administrative in nature and did not alter the methodology developed in 2014. For
16 example, as discussed above, some corporate service functions were relocated from
17 APUC into Liberty Utilities Canada, further enhancing the shared services
18 department structure. Likewise, the shared services department structure was re-
19 labeled as two groups, Business Services and Corporate Services, for internal
20 reporting purposes. The 2015 CAM reflects this change by splitting Table 4 in to
21 two tables – 4A and 4B.

22 A thorough review of the cost drivers was done to develop and affirm the
23 current methodology, including a department-by-department identification of cost
24 drivers. Essentially, each department was asked to confirm the factors driving their
25 costs, and the weightings of the factors if there were multiple drivers. Going
26 forward, we intend to review the CAM annually to evaluate whether the

1 methodology is achieving its purposes—i.e., to achieve a fair allocation of shared
2 services and corporate costs, and to adjust for changes in the number and size of
3 companies receiving shared services and benefitting from the shared services
4 model. This could occur more frequently in the event of a significant acquisition
5 that could change the balance of utility sizes and scope or the overall cost structure.

6 **Q. WHAT IS THE IMPACT OF THE PARK WATER TRANSACTION ON**
7 **CORPORATE ALLOCATIONS?**

8 A. The addition of the three Park utilities has been recognized and incorporated into
9 the distribution of corporate charges commencing with the January 2016 billings.
10 The allocation percentages have been adjusted to reflect the addition of these
11 additional utilities amongst the Liberty family. These three new utilities will
12 receive approximately 16 percent of the allocations from LU, reducing the
13 allocations to EDO by approximately 15 percent with the addition of new
14 companies.

15 **Q. HAS THE ARIZONA CORPORATION COMMISSION APPROVED THIS**
16 **COST ALLOCATION MODEL IN THE MOST RECENT RATE CASES**
17 **FOR LIBERTY UTILITIES?**

18 A. Yes.⁴ We also have received favorable treatment and review of this cost allocation
19 model in other states.

20 **Q. HAVE THE APUC AND LUC CORPORATE COST POOLS CHANGED**
21 **SINCE THE LAST RATE CASES FOR LIBERTY UTILITIES?**

22 A. No, the general costs allocated from APUC and LUC have not changed. We are
23 allocating the same general corporate costs from APUC and LUC to Liberty EDO
24

25 ⁴ See *Liberty Utilities (Rio Rico Water & Sewer) Corp. f/k/a Rio Rico Utilities, Inc.*,
26 Decision No. 73996 (July 30, 2013) at 14-18; *Liberty Utilities (Litchfield Park Water & Sewer) Corp.*, Decision No. 74437 (April 18, 2014), Exhibit A at 2 ¶ 1.5.

1 and the other Arizona utilities. Although the types of costs allocated have not
2 changed, we have made changes to how those costs are allocated. As noted above,
3 we updated the cost methodologies to reflect the growth of APUC and its
4 subsidiaries, and we made some changes in allocation factors to ensure that the
5 proper cost drivers are reflected in the allocation methodologies. As Liberty
6 Utilities evolves as a company, we continually strive to implement our own best
7 practices and link costs to cost drivers. That is why we intend to annually review
8 the allocation methodologies and the results of the APUC and LUC allocations.
9 That review process involves evaluating and updating the allocation factors based
10 on current information relating to plant, customer numbers, and other similar
11 information.

12 **Q. WHAT IS THE CORPORATE COST ALLOCATION AMOUNT FOR**
13 **LIBERTY EDO IN THE TEST YEAR?**

14 A. The corporate cost allocation is \$23,617 for Liberty EDO. That is a very good
15 price for the level of services received.

16 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

17 A. Yes.
18
19
20
21
22
23
24
25
26

WRK-DT1

CURRICULUM VITAE OF WILLIAM R. KILLEEN

Work Experience:

Liberty Utilities (Canada) Corp. (2014 to Present)
Director, Regulatory Strategy

Enersource Hydro Mississauga Inc. (2011 – 2014)
Manager, Regulatory Affairs

Ministry of Energy, Energy Supply and Competition Branch (2011)
Senior Advisor, External Energy Supply

ECNG Energy LP (2003 -2010)
Director, Energy Supply and Regulatory

Direct Energy (2002-2003)
Manager, Regulatory Affairs

Engage Energy Canada Inc. (2001-2002)
Manager, Marketing and Sales

Union Gas Limited (1989 – 2001)
Team Leader, Customer Support Services
Manager, Gas Supply Planning
Coordinator, Regulatory Affairs

Education:

Masters of Business Administration, Richard Ivey School of Business, University of Western Ontario (now Western University), 1989

Bachelor of Engineering Science, Chemical Engineering, University of Western Ontario (now Western University), 1985

Appearances before the Ontario Energy Board (on behalf of Union Gas):

EBRO 499
EBRO 493-04/494-06
EBRO 493/494
EBRO 486-04
EBRO 486-03
EBRO 486
EBO 174
EBLO 243
EBRM 103

EBRM 104
EBLO 244
EBRO 476-03

Appearances before the Ontario Energy Board (on behalf of Enersource):

EB-2012-0033

Other Representations at the Ontario Energy Board:

EB-2002-0130
EB-2005-0520
EB-2008-0106
EB-2008-0219
EB-2008-0292

Other Testimony (on behalf of Liberty Utilities):

Arkansas Public Service Commission - Docket No. 14-020-U – on behalf of Liberty Utilities (Pine Bluff Water) Inc.

Arizona Corporation Commission – Docket Nos. SW-02361A-15-0206 & SW-02361A-15-0207 (consolidated) – on behalf of Liberty Utilities (Black Mountain Sewer) Corp.

Arizona Corporation Commission – Docket Nos. W-02465A-15-0367, W-02465A-15-0370, WS-02676A-15-0368, and WS-02676A-15-0371 (consolidated) – on behalf of Liberty Utilities (Bella Vista Water) Corp. and Liberty Utilities (Rio Rico Water & Sewer) Corp.

Memberships:

Professional Engineers of Ontario
Ontario Society of Professional Engineers
Ontario Energy Association (OEA): Former Chairperson, Energy Markets Committee; Member of Utilities Sector Committee; Former Member of Marketers and Retailers Committee

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TSX Company Manual

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[« Disclosure Policies](#)[Payment of Fees or Charges »](#)

Sec. 714.

TSX may delist the securities of a listed issuer that has failed to comply with TSX's Timely Disclosure policy (see Sections 406 to 423.6 and 472 to 475) or with disclosure requirements under any securities law to which the listed issuer is subject. In addition, TSX may delist the securities of a listed issuer that is engaged in the business of mineral exploration, development or production if such listed issuer has failed to comply with TSX's "Disclosure Standards for Companies Engaged in Mineral Exploration, Development & Production" (see Appendix B).

[« Disclosure Policies](#)[Payment of Fees or Charges »](#)

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Sec. 406.

It is a cornerstone policy of the Exchange that all persons investing in securities listed on the Exchange have equal access to information that may affect their investment decisions. Public confidence in the integrity of the Exchange as a securities market requires timely disclosure of material information concerning the business and affairs of companies listed on the Exchange, thereby placing all participants in the market on an equal footing.

The timely disclosure policy of the Exchange is the primary timely disclosure standard for all TSX listed issuers. National Policy 51-201 *Disclosure Standards* of the CSA, "Disclosure Standards", assists issuers in meeting their legislative disclosure requirements. While the legislative and Exchange timely disclosure requirements differ somewhat, the CSA clearly state in National Policy 51-201 *Disclosure Standards* that they expect listed issuers to comply with the requirements of the Exchange.

To minimize the number of authorities that must be consulted in a particular matter, in the case of securities listed on the Exchange, the Exchange is the relevant contact. The issuer may, of course, consult with the government securities administrator of the particular jurisdiction. In the case of securities listed on more than one stock market, the issuer should deal with each market.

The requirements of the Exchange and National Policy 51-201 *Disclosure Standards* are in addition to any applicable statutory requirements. The Exchange enforces its own policy. Companies whose securities are listed on the Exchange are legally obligated to comply with the provisions on timely disclosure set out in section 75 of the OSA and the Regulation under the Act. Reference should also be made to National Instrument 71-102 *Continuous Disclosure and Other Exemptions Relating to Foreign Issuers*, National Instrument 55-102 *System for Electronic Disclosure by Insiders*, and National Instrument 62-103 *The Early Warning System and Related Take-Over bid and Insider Reporting Issues*.

In addition to the foregoing requirements, companies whose securities are listed on the Exchange and who engage in mineral exploration, development and/or production, must follow the "Disclosure Standards for Companies Engaged in Mineral Exploration, Development and Production" as outlined in Appendix B of this Manual for both their timely and continuous disclosure.

The Market Surveillance Division monitors the timely disclosure policy on behalf of the Exchange.

[« Introduction](#)

[Material Information »](#)

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Securities Law & Instruments

PDF Version (/documents/en/Securities-Category5/pol_20020712_51-201.pdf)

NATIONAL POLICY 51-201 DISCLOSURE STANDARDS

Part I - Introduction

1.1 Purpose

(1) It is fundamental that everyone investing in securities have equal access to information that may affect their investment decisions. The Canadian Securities Administrators ("the CSA" or "We") are concerned about the selective disclosure of material corporate information by companies to analysts, institutional investors, investment dealers and other market professionals. Selective disclosure occurs when a company discloses material nonpublic information to one or more individuals or companies and not broadly to the investing public. Selective disclosure can create opportunities for insider trading and also undermines retail investors' confidence in the marketplace as a level playing field.

(2) This policy provides guidance on "best disclosure" practices in a difficult area involving competing business pressures and legislative requirements. Our recommendations are not intended to be prescriptive. We encourage companies to adopt the suggested measures, but they should be implemented flexibly and sensibly to fit the situation of individual companies.

(3) The timely disclosure requirements and prohibitions against selective disclosure are substantially similar everywhere in Canada, but there are differences among the provinces and territories, so companies should carefully review the legislation which is applicable to them for the details.

in government policy that affects most companies in a particular industry does not require an announcement, but if it affects only one or a few companies in a material way, such companies should make an announcement.

4.5 Exchange Policies

(1) The Toronto Stock Exchange Inc. (the "TSX") and the TSX Venture Exchange Inc. ("TSX Venture") each have adopted timely disclosure policy statements which include many examples of the types of events or information which may be material. Companies should also refer to the guidance provided in these policies when trying to assess the materiality of a particular fact, change or piece of information.

(2) The TSX and TSX Venture policies require the timely disclosure of "material information". Material information includes both material facts and material changes relating to the business and affairs of a company. The timely disclosure obligations in the exchanges' policies exceed those found in securities legislation. It is not uncommon, or inappropriate, for exchanges to impose requirements on their listed companies which go beyond those imposed by securities legislation.³¹ We expect listed companies to comply with the requirements of the exchange they are listed on. Companies who do not comply with an exchange's requirements could find themselves subject to an administrative proceeding before a provincial securities regulator.³²

Part V - Risks Associated with Certain Disclosures

5.1 Private Briefings with Analysts, Institutional Investors and other Market Professionals

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About the Listed Company Manual

The New York Stock Exchange Listed Company Manual is the comprehensive rulebook for listed companies. The Manual also details original and continued listing requirements of the Exchange and sets forth NYSE rules and policies on such matters as corporate governance, shareholder communications, and shareholder approval.



Listed Company Manual

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[Voting Rights Interpretations Under Listed Company Manual Section 313 \(pdf\)](#)

The determination to impose restrictions is based on a careful inspection of the trading for the latest one week period, defr year's average weekly volume to the volume for the period considered, arbitrage, stop order bans, short position, earnings

The restriction itself is aimed primarily at eliminating the extension of credit to those who buy a security and sell it the same requirement is usually imposed on all other margin customers in that they must put up the full purchase price within five bu in seven days.

202.05 Timely Disclosure of Material News Developments

A listed company is expected to release quickly to the public any news or information which might reasonably be expected into with the Exchange.

A listed company should also act promptly to dispel unfounded rumors which result in unusual market activity or price varia

The issuer of income deposit securities traded as a unit shall publicize any change in the terms of the unit, such as change component), or to the ratio of the components within the unit. Such publication shall be made as soon as practicable in rela issuer must provide information regarding the terms and conditions of the components of the unit (including information wit

202.06 Procedure for Public Release of Information

(A) Immediate Release Policy

Information required to be released quickly to the public under Section 202.05 above should be disclosed by means of any issuers must comply with the timely alert policy set forth in Section 202.05 and may do so by any method (or combination c companies to comply with the immediate release policy by issuing press releases.

The spirit of the immediate release policy is not considered to be violated on weekends where a "Hold for Sunday or Mond.

Annual and quarterly earnings, dividend announcements, mergers, acquisitions, tender offers, stock splits, major managen News of major new products, contract awards, expansion plans, and discoveries very often fall into the same category. Un disguise unfavorable news endangers management's reputation for integrity. Changes in accounting methods to mask suc

It should be a company's primary concern to assure that news will be handled in proper perspective. This necessitates app qualified, conservative and factual. Excessive or misleading conservatism should be avoided. Likewise, the repetitive relea

Few things are more damaging to a company's shareholder relations or to the general public's regard for a company's secu trivia.

Premature announcements of new products whose commercial application cannot yet be realistically evaluated should be , not match earlier projections, this too should be reported and explained.

Judgment must be exercised as to the timing of a public release on those corporate developments where the immediate re company should weigh the fairness to both present and potential shareholders who at any given moment may be consideri

(B) Telephone Alert to the Exchange

When the announcement of news of a material event or a statement dealing with a rumor which calls for immediate release representative by telephone at least ten minutes prior to release of the announcement, to inform the Exchange of the subst information necessary to locate the news upon publication. When the announcement is in written form, the company must to release of the announcement. If the Exchange receives such notification in time, it will be in a position to consider wheth openings and trading halts.) A delay in trading after the appearance of the news on the Dow Jones, Reuters or Bloomberg specialist's book in view of the news announcement. Even if limit orders are not canceled or changed during the halt, the fe regardless of the previously entered limit. A longer delay in trading may be necessary if there is an unusual influx of orders overall importance of fairness to all those participating in the market demands that these procedures be followed.

(C) Release to Newspapers and News Wire Services

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ALGONQUIN POWER & UTILITIES CORP.

COST ALLOCATION MANUAL

V2014.1 Effective: July 1st, 2015

This document outlines the methods of direct charges and cost allocations:
(i) between Algonquin Power & Utilities Corp. and its affiliates, including Algonquin Power Company and Liberty Utilities (Canada) Corp.; (ii) between Liberty Utilities (Canada) Corp. and its regulated utility subsidiaries; (iii) between Liberty Utilities (Canada) Corp.'s shared services functions and its affiliates, including Algonquin Power Company and Liberty Utilities (Canada) Corp.; and (iv) between Liberty Utilities Service Corp. and its affiliates.

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1. INTRODUCTION

The purpose of this manual is to provide a detailed explanation of services provided by Algonquin Power & Utilities Corp. (“APUC”), and its affiliates, Algonquin Power Company (“APCo”), Liberty Utilities (Canada) Corp. (“LUC”), and Liberty Utilities Service Corp. (“LUSC”) to the regulated utilities and to describe the Direct Charge¹ and Cost Allocation² Methodologies used by APUC, APCo, LUC, and LUSC. The following organization chart identifies the relationships between the separate entities.

Figure 1: Algonquin Power & Utilities Corporate Structure



This Cost Allocation Manual (“CAM”) has been completed in accordance and conformance with the *NARUC Guidelines for Cost Allocations and Affiliate Transactions* (“NARUC Guidelines”). More specifically, the founding principles of this Cost Allocation Manual are to a) directly charge as much as possible to the entity that procures any specific service, and b) to ensure that inappropriate subsidization of unregulated activities by regulated activities, and vice versa, does not occur. For ease of reference, the NARUC Guidelines are attached as Appendix 1.

¹ Direct charges (sometimes referred to as assigned costs) are costs incurred by one company for the exclusive benefit of one or more other companies, and which are directly charged (or assigned) to the company or companies that specifically benefited.

² Allocated costs are costs incurred by one company that are for the benefit of either (a) all of the Algonquin companies or (b) all of the regulated companies, and which are charged to the benefited companies using a methodology and set of logical allocation factors that establish a reasonable link between cost causation and cost recovery.

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Costs charged and allocated pursuant to this CAM shall include direct labor, direct materials, direct purchased services associated with the related asset or services, and overhead amounts. The direct charges are assigned as follows:

- a. Tariffed rates or other pricing mechanisms established by rate setting authorities shall be used to provide all regulated services;
- b. Services not covered by (a) shall be charged by the providing party to the receiving party at fully distributed cost; and
- c. Facilities and administrative services rendered to a rate-regulated subsidiary shall be charged on the following basis:

(i) the prevailing price for which the service is provided for sale to the general public by the providing party (i.e., the price charged to non-affiliates if such transactions with non-affiliates constitute a substantial portion of the providing party's total revenues from such transactions) or, if no such prevailing price exists, (ii) an amount not to exceed the fully distributed cost incurred by the providing party in providing such service to the receiving party.

2. THE APUC CORPORATE STRUCTURE

APUC's primary business is direct interest or equity ownership in renewable and thermal power generating facilities and regulated utilities. APUC owns a widely diversified portfolio of independent power production facilities³ and regulated utilities⁴ consisting of water distribution, wastewater treatment facilities, electric and gas utilities. While power production facilities are located in both Canada and the United States, regulated utility operations are exclusively in the United States. APUC is publicly traded on the Toronto Stock Exchange⁵. Its structure as a publicly traded holding company provides substantial benefits to its regulated utilities through access to capital markets.

³ All power production (i.e. generation) facilities are found within Algonquin Power Company within the APUC corporate structure.

⁴ All distribution utilities are found within Liberty Utilities (Canada) Corp. within the APUC corporate structure.

⁵ Common shares and preferred shares are traded on the Toronto Stock Exchange (TSX) under the symbols AQN, AQN.PR.A and AQN.PR.D. Additional corporate information can be found at the company's website, algonquinpower.com.

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APUC is the ultimate corporate parent and affiliate that provides financial, strategic management, corporate governance, administrative and support services to LUC and its subsidiaries as well as to the numerous generation assets held by APCo. The services provided by APUC are necessary for LUC and its subsidiaries to have access to capital markets for capital projects and operations. These services are expensed at APUC and are performed for the benefit of APCo and LUC and their respective businesses.

APUC and its affiliates capitalize on APUC's expertise and access to the capital markets through the use of certain shared services, which maximizes economies of scale and minimizes redundancy. In short, it provides for maximum expertise at lower costs. Further, the use of shared expertise allows each of the entities to receive a benefit they may not be able to achieve on a stand-alone basis such as strategic management advice and access to capital at more competitive rates.

3. SCOPE OF SERVICES FROM APUC AND APCO AMONG AFFILIATES AND HOW THOSE COSTS ARE DISTRIBUTED

Each distribution utility can be assigned and/or allocated costs from APUC, LUC and LUSC. This section provides an overview of the services and the cost methodology for APUC. In addition, this section also addresses any costs and services that may arise from APCo.

3.1 Labor Services and Cost Allocation from APUC to LUC and APCo

3.1.1 Description of the APUC Services and Costs

APUC provides benefits to its affiliate companies by use of certain shared services. APUC charges labor rates for these shared services at cost, which is the dollar hourly rate per employee as recorded in APUC's payroll systems, grossed up for burdens such as payroll taxes, health benefits, retirement plans, other insurance provided to employees, and other employee benefits. These labor costs are charged directly based on timesheets to the extent possible. If labor is for the benefit of all subsidiaries then the allocation methodologies used for non-labor costs are applied.

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APUC's non-labor services include Financing Services. As used herein Financing Services means the selling of units to public investors in order to generate the funding and capital necessary (be it short term or long term funding, including equity and debt) for LUC and APCo as well as providing legal services in connection with the issuance of public debt.

The capital and funds obtained from the sale of shares in APUC are used by LUC and APCo for current and future capital investments. The services provided by APUC are critical and necessary to LUC and APCo because without those services they would not have a readily available source of capital funding. Further, relatively small utilities may have difficulty attracting capital on a stand-alone basis.

The services provided by APUC specifically optimize the performance of the utilities, keeping rates low for customers while ensuring access to capital is available. If the utilities did not have access to the services provided by APUC, then they would be forced to incur associated costs for financing, capital investment, audits, taxes and other similar services on a stand-alone basis, which would substantially increase such costs. Simply put, without incurring these costs, APUC would not be able to invest capital in its subsidiaries, including the regulated utilities.

In connection with the provision of Financing Services, APUC incurs the following types of costs: (i) strategic management costs (board of director, third-party legal services, accounting services, tax planning and filings, insurance, and required auditing); (ii) capital access costs (communications, investor relations, trustee fees, escrow and transfer agent fees); (iii) financial control costs (audit and tax expenses); and (iv) administrative (rent, depreciation, general office costs). See Appendix 2 for a more detailed discussion of the costs incurred by APUC.

Non-labor costs, excluding corporate capital, are pooled and allocated to LUC's subsidiaries and APCo using the method summarized in Table 1. Each corporate cost type, or function, has been carefully reviewed to properly identify the factors driving those costs. Each function or cost type is typically driven by more than one factor and each has been assigned an appropriate weighting. Table 1 includes brief commentary on the rationale for each cost driver and weighting, along with examples for each cost type.

Table 1: Summary of Corporate Allocation Method of APUC Indirect Costs

Type of Cost	Allocation Methodology		Rationale	Examples
Legal Costs	Net Plant	33.3%	This function is driven by factors which include Net Plant, as typically the higher the value of plant, the more legal work it attracts; similarly, a greater number of employees are typically more indicative of larger facilities that require greater levels of attention; and O&M costs tend to be a third factor indicative of size and legal complexity.	Employee labor and related administration and programs; Third party legal
	Number of Employees	33.3%		
	O&M	33.3%		
Tax Services	Revenue	33.3%	This function is driven by a variety of factors that influence the size and relative tax complexity, including Revenues, O&M and Net Plant. Tax activity can be driven by each of these factors.	Employee labor and related administration and programs, including Third party tax advice and services
	O&M	33.3%		
	Net Plant	33.3%		
Audit	Revenue	33.3%	This function is driven by a variety of factors that influence the size	Employee labor and related administration and programs,
	O&M	33.3%		
	Net Plant	33.3%		

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			and complexity of Audit, including Revenues, O&M and Net Plant. Audit activity can be driven by each of these factors.	including Third party accounting and audit services
Investor Relations	Revenue 33.3% O&M 33.3% Net Plant 33.3%		This function is driven by factors which reflect the relative size and scope of each affiliate - Revenues, Net Plant and O&M costs.	Employee labor and related administration and programs, including third party Investor day communications and materials
Director Fees and Insurance	Revenue 33.3% O&M 33.3% Net Plant 33.3%		This function is driven by factors which reflect the relative size and scope of each affiliate - Revenues, Net Plant and O&M costs.	Board of Director fees, insurance and administration
Licenses, Fees and Permits	Revenue 33.3% O&M 33.3% Net Plant 33.3%		This function is driven by factors which reflect the relative size and scope of each affiliate - Revenues, Net Plant and O&M costs.	Third party costs
Escrow and Transfer Agent Fees	Revenue 33.3% O&M 33.3% Net Plant 33.3%		This function is driven by factors which reflect the relative size and scope of each affiliate - Revenues, Net Plant and O&M costs.	Third party costs

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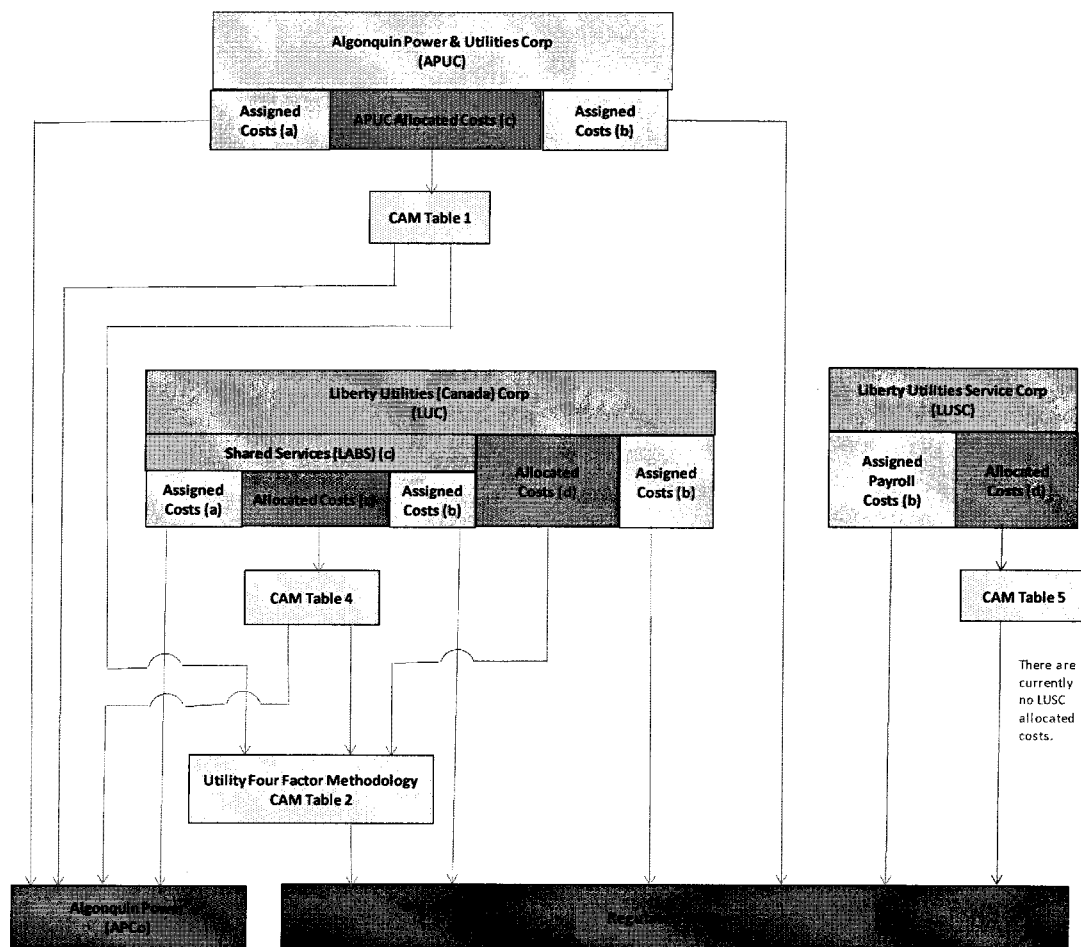
Other Professional Services	Revenue 33.3% O&M 33.3% Net Plant 33.3%	This function is driven by factors which reflect the relative size and scope of each affiliate - Revenues, Net Plant and O&M costs.	Third party costs
Office Administration	Oakville Employees 50% Square Footage 50%	This function is driven by factors which are indicative of number of employees and square footage utilized by these employees.	Office space and utility costs. Employee labor and related administration
Executives	Revenue 33.3% O&M 33.3% Net Plant 33.3%	This function is driven by factors which reflect the relative size and scope of each affiliate - Revenues, Net Plant and O&M costs.	Employee labor cost that is not directly attributable to any entity

Notwithstanding the above, if a charge is related either solely to the regulated utility business, i.e., LUC, or to the power generation business, i.e., APCo, then all of those costs will be direct charged, or assigned, to the business segment for which they are incurred.

Lastly, if a cost can be directly attributable to a specific entity, it will be directly charged to that entity.

3.1.2 Description of the APUC Cost Flows

Please refer to Figure 2 for a diagram of the various flows of costs that may arise from each affiliate, including APUC.

Figure 2: Illustration of APUC Corporate Cost Distributions

- (a) Costs that are directly assignable to unregulated companies
 (b) Costs that are directly assignable to regulated companies
 (c) Costs that benefit both unregulated and regulated operations
 (d) Costs that benefit all regulated operations

As illustrated in Figure 2 and as described above, APUC incurs three types of costs that are passed on to its direct and indirect subsidiaries. The first type is APUC's costs that directly benefit a particular specific unregulated company, which are directly assigned to that unregulated company. The second type is APUC's costs that directly benefit a particular regulated company, which are directly assigned to that regulated company. The third type are APUC's remaining costs that benefit the entire enterprise (both regulated and unregulated), which are allocated between regulated and unregulated company groups pursuant to CAM Table 1. Information within Table 1 includes: (a) each type of cost incurred by APUC that is to be allocated between regulated and unregulated parts of the business; (b) the factors used to allocate each type of cost between regulated and unregulated activity; (c)

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the rationale for selecting the factors that are used for allocation; and (d) examples of the specific allocated costs. The costs allocated to the regulated companies as a group are then reallocated to individual companies using the Utility Four-Factor allocation methodology set forth in CAM Table 2 (described below), resulting in utility-specific allocated charges from APUC.

For an example of how an APUC invoice would be assigned or allocated, please see Appendix 3.

Certain costs, which are incurred for the benefit of APUC's businesses, are not allocated to any subsidiary. These include costs such as certain corporate travel and certain overheads.

3.2 Labor Services and Cost Allocation From APCo To LUC

From time to time, APCo may provide Engineering and Technical Labor to LUC or its utilities. These charges plus an allocation for corporate overheads such as rent, materials/supplies, etc. are capitalized and directly charged to the relevant utility.

From time to time, APCo employees may provide administrative support to LUC or its utilities. These charges are direct charged using time sheets.

4. SCOPE OF SERVICES PROVIDED BY LUC TO ITS SUBSIDIARIES, APUC AND APCO, AND HOW THOSE COSTS ARE DISTRIBUTED

Each distribution utility can be assigned and/or allocated costs from APUC, LUC and LUSC. This section provides an overview of the services and the cost methodology for LUC.

4.1 Overview of LUC Services and Costs

Please refer to Figure 2 for a diagram of the various flows of costs that may arise from each affiliate, including LUC.

As illustrated in Figure 2, LUC incurs three types of costs that are passed on to other direct or indirect subsidiaries. The first type is an LUC cost that directly benefits a particular regulated company, which is directly assigned to that regulated

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company. The second type is an LUC cost that benefits all of the regulated companies, which is allocated using the Utility Four-Factor Methodology described in CAM Table 2. Both of these cost types are described in section 4.2 below.

The third type of costs arising from LUC are those from shared services⁶ that benefit both the regulated group of companies and the unregulated group of companies within the Liberty / Algonquin family, which are allocated between the two groups pursuant to the methodology described in section 4.3 and as set forth in CAM Table 4.

4.2 LUC Services and Costs Provided to Utilities

LUC provides its regulated utilities with the following services: accounting, administration, corporate finance, human resources (including training and development), information technology, rates and regulatory affairs, environment, health, safety, and security, customer service, procurement, risk management, legal, and utility planning. The following are examples of some of the services provided: (i) budgeting, forecasting, and financial reporting services including preparation of reports and preservation of records, cash management (including electronic fund transfers, cash receipts processing, managing short-term borrowings and investments with third parties); (ii) development of customer service policies and procedures; (iii) development of human resource policies and procedures; (iv) selection of information systems and equipment for accounting, engineering, administration, customer service, emergency restoration and other functions and implementation thereof; (v) development, placement and administration of insurance coverages and employee benefit programs, including group insurance and retirement annuities, property inspections and valuations for insurance; (vi) purchasing services including preparation and analysis of product specifications, requests for proposals and similar solicitations; and vendor and vendor-product evaluations; (vii) energy procurement oversight and load forecasting; and (viii) development of regulatory strategy.

LUC will assign costs that can be directly attributable to a specific utility. These include direct labor and direct non-labor costs. However, the indirect LUC costs cannot be directly attributed to an individual utility. LUC allocates its indirect

⁶ As discussed later, LUC costs that benefit both regulated and unregulated businesses are incurred within Liberty Algonquin Business Services ("LABS"), which is a business unit within LUC that serves both regulated and unregulated entities.

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labor and indirect non-labor costs, including capital costs, to its regulated utilities using a Utility Four-Factor Methodology. LUC uses the Utility Four-Factor Methodology to allocate costs incurred for the benefit of all of its regulated assets (“System-Wide Costs”) to all of its utilities.

The Utility Four-Factor Methodology allocates costs by relative size of the utilities. The methodology used by LUC involves four allocating factors, or drivers: (1) Utility Plant; (2) Total Customers; (3) Non-Labor Expenses; and (4) Labor, with each factor assigned an equal weight, as shown in Table 2 below.

Table 2: Utility Four-Factor Methodology Factors and Weightings

Factor	Weight
Utility Plant	25%
Customer Count	25%
Non-Labor Expenses	25%
Labor	25%
Total	100%

LUC also uses the Utility Four-Factor Methodology to allocate to its regulated utilities the system-wide indirect labor and indirect non-labor costs allocated to LUC from APUC.

Table 3 provides a simplified hypothetical example to demonstrate how the Utility Four-Factor Methodology would be calculated based on ownership of only two hypothetical utilities.

Table 3: Utility Four-Factor Methodology Example

Factor	Utility 1	Utility 2	Total All Utilities	Utility 1 % of Total	Factor Weight	Utility 1 Allocation
Utility Plant (\$)	727	371	1098	66%	25%	17%
Customer Count (#)	6000	1000	7000	86%	25%	21%
Labor (\$)	57	32	89	64%	25%	16%
Non-Labor Expenses (\$)	108	41	149	72%	25%	18%
Total Allocation						72%

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As can be seen from these hypothetical numbers in Table 3, Utility 1 would be allocated 72% of the total indirect costs incurred by LUC, based on its relative size and application of the Utility Four-Factor Methodology. Utility 2 would be allocated the remaining 28%. LUC has developed and utilized this methodology to better allocate costs, recognizing that larger utilities require more time and management attention and incur greater costs than smaller ones.

On occasion there may be costs which are incurred for the benefit of two or more utilities, but not all of the utilities. These costs are directly assigned to utilities as per the vendor invoice, or, if the invoice doesn't specify a share for each utility, the Utility Four-Factor Methodology is used. In this situation, the weighting is determined by only including the utilities that benefited from the service and excluding the utilities that did not receive the service.

For an example of how an LUC invoice would be assigned or allocated, please see Appendix 4.

4.3 Shared Services from LUC

The third type of costs arising from LUC are those from shared services⁷ that benefit both the regulated group of companies and the unregulated group of companies within the Liberty / Algonquin family.

Consistent with the organization practices described earlier, shared services and costs (within LUC) are assigned when they are directly attributable to a specific business unit⁸. Labor charges for LUC shared services staff are assigned using time sheets that depict the amount of time that is to be direct charged to either LUC or APCo.

Indirect costs for services from the shared services functions that cannot be directly assigned are allocated between the regulated and unregulated business units, LUC and APCo, pursuant to the methodology set forth in CAM Tables 4a and 4b. Similar to Table 1, Tables 4a and 4b include: (a) each type of cost incurred by LUC that is to be allocated between regulated and unregulated parts of the business; (b) the factors used to allocate each type of cost between regulated and

⁷ Liberty Algonquin Business Services ("LABS") is a business unit found organizationally within LUC that serves both regulated and unregulated entities.

⁸ To clarify, if a LABS service is for only one specific organization, such as the unregulated generation business, APCo, the cost will be directly charged to that business unit.

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unregulated activity; (c) the rationale for selecting the factors that are used for allocation; and (d) examples of the specific allocated costs. The costs allocated to the regulated companies as a group are then reallocated to individual companies using the Utility Four-Factor Methodology set forth in CAM Table 2, resulting in utility-specific allocated charges from LUC.

For an example of how an invoice or cost within LUC's shared services (LABS) would be assigned or allocated, please see Appendix 5.

4.3.1 Business Services and Corporate Services

LUC shared services that benefit the entire company, i.e., APCo and LUC, are internally referenced under two names - Business Services and Corporate Services. The services and functions within each category are shown in the tables below⁹. Indirect costs from Business Services and Corporate Services are allocated using the following methodology shown in Tables 4a and 4b, respectively, which are designed to closely align the costs with the driver of the activity.

Table 4a: Summary of Corporate Allocation Method of LUC Business Services Indirect Costs

Type of Cost	Allocation Methodology	Rationale	Examples
Information Technology	Number of Employees 90% O&M 10%	IT function is driven by factors which include number of employees and O&M. The larger the number of employees, the more support, software and IT infrastructure is required.	Enterprise wide support, architecture, etc. Third party fees

⁹ Note that the shared service functions found in Tables 4a and 4b are unchanged from those shown in Table 4 in the prior version of the CAM. These functions have simply been reorganized into these two Tables, 4a and 4b, to show the differentiation between Business Services and Corporate Services.

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Human Resources	Number of Employees 100%	HR function is driven by number of employees. A greater number of employees requires additional HR support	HR policies, payroll processing, benefits, employee surveys
Training	Number of Employees 100%	Training is directly proportional to the number of employees per function	Courses, lectures, in house training sessions by third party providers
Facilities and Building Rent	Square Footage 100%	Office space occupied accurately reflects space requirements of each subsidiary	Corporate office building
Environment, Health, Safety and Security	Number of Employees 100%	EHSS training, etc. is directly proportional to the number of employees per function	Enterprise wide programs, employee labor and related administration
Procurement	O&M 50% Capital Expenditures 50%	Procurement function is based on typical proportion of expenditures	Enterprise wide support and related administration

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Table 4b: Summary of Corporate Allocation Method of LUC Corporate Services Indirect Costs

Risk Management	Net Plant 33.3% Revenue 33.3% O&M 33.3%	This function is driven by factors which reflect the relative size and complexity of Risk Management - Revenues, Net Plant and O&M costs.	Software platform, fees and administration
Financial Reporting and Administration	Revenue 33.3% O&M 33.3% Net Plant 33.3%	This function is driven by factors which reflect the relative size and complexity of Financial Reporting and Admin. - Revenues, Net Plant and O&M costs.	Employee labor and related administration and third party fees
Treasury	Capital Expenditures 25% O&M 50% Net Plant 25%	Treasury activity is typically guided by the amount of necessary capex/plant for each utility, and operating costs/cash flow	Third party financing, employee labor and related administration and programs
Internal Audit	Net Plant 25% O&M 75%	This function is driven by factors which reflect the relative size and complexity of Internal audit activity. Larger Plant and operating costs drive of a given facility drive	Third party fees, employee labor and related administration and programs

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			more activity from IA.	
Communications	Number of Employees	100%	Communications cost is directly proportional to the number of employees	Enterprise wide support and related administration
Legal Costs	Net Plant Number of Employees O&M	33.3% 33.3% 33.3%	This function is driven by factors which include Net Plant, as typically the higher the value of plant, the more legal work it attracts; similarly, a greater number of employees are typically more indicative of larger facilities that require greater levels of attention; and O&M costs tend to be a third factor indicative of size and legal complexity.	Employee labor and related administration and programs, including third party legal

5. LIBERTY UTILITIES SERVICE CORP.

Each distribution utility can be assigned and/or allocated costs from APUC, LUC and LUSC. This section provides an overview of the services and the cost methodology for LUSC.

All U.S.-based utility employees are employed, or will be employed, by Liberty Utilities Service Corp. (LUSC). All employees' costs, such as salaries, benefits, insurances etc. are to be paid by LUSC and direct charged to the company to which the employee is dedicated and performs work. Services provided from

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LUSC to each regulated utility shall be done on a time sheet basis to the extent possible. In infrequent instances where time sheeting may not be possible, the allocation factors shown in Table 5 are to be used.

Table 5: Summary of Allocation Method of LUSC Indirect Costs

Type of Cost	Allocation Methodology		Rationale	Examples
Customer Care and Billing	Customer count	100%	Customer count accurately reflects the resource requirements of the Customer Care and Billing group	Customer Care and Billing employees and related administrations
IT/Tech Support	Number of Employees	100%	Technical support requirements are related to the number of employees	Tech support staff, associated administration, and required software, hardware, etc.
Human Resources	Number of Employees	100%	HR function is driven by number of employees. A greater number of employees requires additional HR support	HR policies, payroll processing, benefits, employee surveys
Gas Control	Net Plant	100%	The greater the plant, the more control required	Gas Control labor, administration, and associated programs
Legal	Net Plant Number of Employees O&M	33.3% 33.3% 33.3%	Allocated based on the relative size of affiliate and employee count.	Employee labor and related administration and programs, including third party legal

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Regulatory	Net Plant Number of Employees O&M	33.3% 33.3% 33.3%	Allocated based on the relative size of affiliate and employee count.	Utility-wide studies or third party costs beneficial to all utilities
Environment, Health, Safety and Security	Number of Employees	100%	EHSS training, etc. is directly proportional to the number of employees	Utility-wide programs, employee labor and related administration
Procurement	O&M Capital Expenditures	50% 50%	Based on typical proportion of expenditures	Utility-wide support and related administration

Please note the allocation methodology can be adjusted based on the number of participating utilities. For example, Customer Service representatives who serve only the New Hampshire utilities will only have their indirect costs allocated, if any, based on the number of customers within New Hampshire. Labor costs associated with energy procurement are directly billed to the utilities requiring energy procurement services using timesheets.

6. CORPORATE CAPITAL

APUC or LUC will make capital investments for the benefit of all the utilities or facilities it owns (examples include corporate headquarters, IT systems, etc.). All capital investments kept at the corporate level benefiting all facilities will be distributed monthly in the form of an intercompany operating expense charge that captures the depreciation expense and cost of capital associated with the assets. All costs associated to service the investment will be allocated to APCo and LUC's utilities based on that department's allocation where the capital investment is made. For example, if the capital investment is made in Human Resources then the allocation methodology used for Human Resources to allocate non-capital indirect costs as shown in Table 4a will be used to allocate the charge associated with the corporate capital expenditures, including the cost of capital, depreciation, property tax, operation and maintenance costs and all other associated costs. Any corporate capital charges allocated to LUC are then reallocated to individual companies using the Utility Four-Factor Methodology set forth in CAM Table 2.

7. UPDATING ALLOCATIONS

Allocation percentages¹⁰ are updated annually. These annual updates to the allocation percentages are based on the most recent audited financial statements and other actual, year-end information. The updated percentages come into effect each April 1st and are valid through to the following March 31st. These allocations percentages are also updated if an entity is either acquired or sold.

8. CAM TRAINING

The oversight of the CAM is currently the responsibility of the corporate Regulatory department. Any updates or revisions are coordinated and completed by this group. The CAM, and any support material, is distributed to Finance and Regulatory staff throughout the organization at least annually. Any revisions to the CAM are distributed immediately upon finalization to this same audience. Training sessions are conducted annually to Finance, Regulatory and other affected departments. As part of the employee orientation program, new employees receive an introduction to the CAM. Further enhancements and additions to this employee training program to foster and enhance the organization's understanding of the CAM are ongoing. For example, it is anticipated that an online training module will be created and deployed across the organization, supplemented by a self-certification process.

¹⁰ To clarify, the factors and weightings are expected to remain constant. It is the underlying information used to calculate the allocation percentages that is updated annually, such as the most recent net plant figures, or the most recent numbers of employees, for example.

9. APPENDICES

APPENDIX 1 - NARUC GUIDELINES FOR COST ALLOCATIONS

Guidelines for Cost Allocations and Affiliate Transactions:

The following Guidelines for Cost Allocations and Affiliate Transactions (Guidelines) are intended to provide guidance to jurisdictional regulatory authorities and regulated utilities and their affiliates in the development of procedures and recording of transactions for services and products between a regulated entity and affiliates. The prevailing premise of these Guidelines is that allocation methods should not result in subsidization of non-regulated services or products by regulated entities unless authorized by the jurisdictional regulatory authority. These Guidelines are not intended to be rules or regulations prescribing how cost allocations and affiliate transactions are to be handled. They are intended to provide a framework for regulated entities and regulatory authorities in the development of their own policies and procedures for cost allocations and affiliated transactions. Variation in regulatory environment may justify different cost allocation methods than those embodied in the Guidelines.

The Guidelines acknowledge and reference the use of several different practices and methods. It is intended that there be latitude in the application of these guidelines, subject to regulatory oversight. The implementation and compliance with these cost allocations and affiliate transaction guidelines, by regulated utilities under the authority of jurisdictional regulatory commissions, is subject to Federal and state law. Each state or Federal regulatory commission may have unique situations and circumstances that govern affiliate transactions, cost allocations, and/or service or product pricing standards. For example, The Public Utility Holding Company Act of 1935 requires registered holding company systems to price "at cost" the sale of goods and services and the undertaking of construction contracts between affiliate companies.

The Guidelines were developed by the NARUC Staff Subcommittee on Accounts in compliance with the Resolution passed on March 3, 1998 entitled "Resolution Regarding Cost Allocation for the Energy Industry" which directed the Staff Subcommittee on Accounts together with the Staff Subcommittees on Strategic Issues and Gas to prepare for NARUC's consideration, "Guidelines for Energy Cost Allocations." In addition, input was requested from other industry parties.

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Various levels of input were obtained in the development of the Guidelines from the Edison Electric Institute, American Gas Association, Securities and Exchange Commission, the Federal Energy Regulatory Commission, Rural Utilities Service and the National Rural Electric Cooperatives Association as well as staff of various state public utility commissions.

In some instances, non-structural safeguards as contained in these guidelines may not be sufficient to prevent market power problems in strategic markets such as the generation market. Problems arise when a firm has the ability to raise prices above market for a sustained period and/or impede output of a product or service. Such concerns have led some states to develop codes of conduct to govern relationships between the regulated utility and its non-regulated affiliates. Consideration should be given to any "unique" advantages an incumbent utility would have over competitors in an emerging market such as the retail energy market. A code of conduct should be used in conjunction with guidelines on cost allocations and affiliate transactions.

A. DEFINITIONS

1. Affiliates - companies that are related to each other due to common ownership or control.
2. Attestation Engagement - one in which a certified public accountant who is in the practice of public accounting is contracted to issue a written communication that expresses a conclusion about the reliability of a written assertion that is the responsibility of another party.
3. Cost Allocation Manual (CAM) - an indexed compilation and documentation of a company's cost allocation policies and related procedures.
4. Cost Allocations - the methods or ratios used to apportion costs. A cost allocator can be based on the origin of costs, as in the case of cost drivers; cost-causative linkage of an indirect nature; or one or more overall factors (also known as general allocators).
5. Common Costs - costs associated with services or products that are of joint benefit between regulated and non-regulated business units.
6. Cost Driver - a measurable event or quantity which influences the level of costs incurred and which can be directly traced to the origin of the costs themselves.

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7. Direct Costs - costs which can be specifically identified with a particular service or product.
8. Fully Allocated costs - the sum of the direct costs plus an appropriate share of indirect costs.
9. Incremental pricing - pricing services or products on a basis of only the additional costs added by their operations while one or more pre-existing services or products support the fixed costs.
10. Indirect Costs - costs that cannot be identified with a particular service or product. This includes but not limited to overhead costs, administrative and general, and taxes.
11. Non-regulated - that which is not subject to regulation by regulatory authorities.
12. Prevailing Market Pricing - a generally accepted market value that can be substantiated by clearly comparable transactions, auction or appraisal.
13. Regulated - that which is subject to regulation by regulatory authorities.
14. Subsidization - the recovery of costs from one class of customers or business unit that are attributable to another.

B. COST ALLOCATION PRINCIPLES

The following allocation principles should be used whenever products or services are provided between a regulated utility and its non-regulated affiliate or division.

1. To the maximum extent practicable, in consideration of administrative costs, costs should be collected and classified on a direct basis for each asset, service or product provided.
2. The general method for charging indirect costs should be on a fully allocated cost basis. Under appropriate circumstances, regulatory authorities may consider incremental cost, prevailing market pricing or other methods for allocating costs and pricing transactions among affiliates.

COST ALLOCATION MANUAL

3. To the extent possible, all direct and allocated costs between regulated and non-regulated services and products should be traceable on the books of the applicable regulated utility to the applicable Uniform System of Accounts. Documentation should be made available to the appropriate regulatory authority upon request regarding transactions between the regulated utility and its affiliates.
4. The allocation methods should apply to the regulated entity's affiliates in order to prevent subsidization from, and ensure equitable cost sharing among the regulated entity and its affiliates, and vice versa.
5. All costs should be classified to services or products which, by their very nature, are either regulated, non-regulated, or common to both.
6. The primary cost driver of common costs, or a relevant proxy in the absence of a primary cost driver, should be identified and used to allocate the cost between regulated and non-regulated services or products.
7. The indirect costs of each business unit, including the allocated costs of shared services, should be spread to the services or products to which they relate using relevant cost allocators.

C. COST ALLOCATION MANUAL (NOT TARIFFED)

Each entity that provides both regulated and non-regulated services or products should maintain a cost allocation manual (CAM) or its equivalent and notify the jurisdictional regulatory authorities of the CAM's existence. The determination of what, if any, information should be held confidential should be based on the statutes and rules of the regulatory agency that requires the information. Any entity required to provide notification of a CAM(s) should make arrangements as necessary and appropriate to ensure competitively sensitive information derived therefrom be kept confidential by the regulator. At a minimum, the CAM should contain the following:

1. An organization chart of the holding company, depicting all affiliates, and regulated entities.
2. A description of all assets, services and products provided to and from the regulated entity and each of its affiliates.

COST ALLOCATION MANUAL

3. A description of all assets, services and products provided by the regulated entity to non-affiliates.
4. A description of the cost allocators and methods used by the regulated entity and the cost allocators and methods used by its affiliates related to the regulated services and products provided to the regulated entity.

D. AFFILIATE TRANSACTIONS (NOT TARIFFED)

The affiliate transactions pricing guidelines are based on two assumptions. First, affiliate transactions raise the concern of self-dealing where market forces do not necessarily drive prices. Second, utilities have a natural business incentive to shift costs from non-regulated competitive operations to regulated monopoly operations since recovery is more certain with captive ratepayers. Too much flexibility will lead to subsidization. However, if the affiliate transaction pricing guidelines are too rigid, economic transactions may be discouraged.

The objective of the affiliate transactions' guidelines is to lessen the possibility of subsidization in order to protect monopoly ratepayers and to help establish and preserve competition in the electric generation and the electric and gas supply markets. It provides ample flexibility to accommodate exceptions where the outcome is in the best interest of the utility, its ratepayers and competition. As with any transactions, the burden of proof for any exception from the general rule rests with the proponent of the exception.

1. Generally, the price for services, products and the use of assets provided by a regulated entity to its non-regulated affiliates should be at the higher of fully allocated costs or prevailing market prices. Under appropriate circumstances, prices could be based on incremental cost, or other pricing mechanisms as determined by the regulator.
2. Generally, the price for services, products and the use of assets provided by a non-regulated affiliate to a regulated affiliate should be at the lower of fully allocated cost or prevailing market prices. Under appropriate circumstances, prices could be based on incremental cost, or other pricing mechanisms as determined by the regulator.
3. Generally, transfer of a capital asset from the utility to its non-regulated affiliate should be at the greater of prevailing market price or net book value, except as

COST ALLOCATION MANUAL

otherwise required by law or regulation. Generally, transfer of assets from an affiliate to the utility should be at the lower of prevailing market price or net book value, except as otherwise required by law or regulation. To determine prevailing market value, an appraisal should be required at certain value thresholds as determined by regulators.

4. Entities should maintain all information underlying affiliate transactions with the affiliated utility for a minimum of three years, or as required by law or regulation.

E. AUDIT REQUIREMENTS

1. An audit trail should exist with respect to all transactions between the regulated entity and its affiliates that relate to regulated services and products. The regulator should have complete access to all affiliate records necessary to ensure that cost allocations and affiliate transactions are conducted in accordance with the guidelines. Regulators should have complete access to affiliate records, consistent with state statutes, to ensure that the regulator has access to all relevant information necessary to evaluate whether subsidization exists. The auditors, not the audited utilities, should determine what information is relevant for a particular audit objective. Limitations on access would compromise the audit process and impair audit independence.

2. Each regulated entity's cost allocation documentation should be made available to the company's internal auditors for periodic review of the allocation policy and process and to any jurisdictional regulatory authority when appropriate and upon request.

3. Any jurisdictional regulatory authority may request an independent attestation engagement of the CAM. The cost of any independent attestation engagement associated with the CAM, should be shared between regulated and non-regulated operations consistent with the allocation of similar common costs.

4. Any audit of the CAM should not otherwise limit or restrict the authority of state regulatory authorities to have access to the books and records of and audit the operations of jurisdictional utilities.

5. Any entity required to provide access to its books and records should make arrangements as necessary and appropriate to ensure that competitively sensitive information derived therefrom be kept confidential by the regulator.

COST ALLOCATION MANUAL

F. REPORTING REQUIREMENTS

1. The regulated entity should report annually the dollar amount of non-tariffed transactions associated with the provision of each service or product and the use or sale of each asset for the following:

- a. Those provided to each non-regulated affiliate.
- b. Those received from each non-regulated affiliate.
- c. Those provided to non-affiliated entities.

2. Any additional information needed to assure compliance with these Guidelines, such as cost of service data necessary to evaluate subsidization issues, should be provided.

Source:

<http://www.naruc.org/Publications/Guidelines%20for%20Cost%20Allocations%20and%20Affiliate%20Transactions.pdf>

APPENDIX 2 – DETAILED EXPLANATION OF APUC COSTS

1. APUC STRATEGIC MANAGEMENT COSTS

Strategic management decisions are critical for any public utility. The need for strategic management is even more pronounced for APUC as a publicly traded company, which depends on access to capital funding through public sales of units. APUC seeks to hire talented strategic managers that aid in running each facility owned by the company as efficiently and effectively as possible. This ensures the long term health of each utility and ensures that rates are kept as low as possible without compromising the level of service. It also facilitates each regulated utility's access to necessary capital funding at reduced costs. The costs included in Strategic Management Costs fall into the following categories.

a. Board of Directors

The Board of Directors provides strategic oversight on all company affairs including high level approvals of strategy, operation and maintenance budgets, capital budgets, etc. In addition, the Board of Directors provides corporate governance and ensures that capital and costs are incurred prudently, which ultimately protects ratepayers.

b. General Legal Services

General legal services involve legal matters not specific to any single facility, including review of audited financial statements, annual information filings, Sedar filings, review of contracts with credit facilities, incorporation, tax issues of a legal nature, market compliance, and other similar legal costs. These legal services are required in order for APUC to provide capital funding to individual utilities, without which the utilities could not provide adequate service. Additionally, the services ensure that APUC's subsidiaries remain compliant in all aspects of operations and prevent those entities from being exposed to unnecessary risks.

c. Professional Services

Professional Services including strategic plan reviews, capital market advisory services, ERP System maintenance, benefits consulting, and other similar professional services. By providing these services at a parent level, the subsidiaries are able to benefit from economies of scale. Additionally, some of these services improve APUC's access to capital which benefits all of its subsidiaries.

2. ACCESS TO CAPITAL MARKETS

One of APUC's primary functions is to ensure its subsidiaries have access to quality capital. APUC is listed on the Toronto Stock Exchange, a leading financial market. In order to allow its subsidiaries to have continued access to those capital markets, APUC incurs the following costs. These services and costs are a prerequisite to the subsidiaries continued access to those capital markets.

a. License and Permit Fees

In connection with APUC's participation in the Toronto Stock Exchange, APUC incurs certain license and permit fees such as Sedar fees, annual filing fees, licensing fees, etc. These licensing and permit fees are required in order to sell units on the Toronto Stock Exchange, which in turn provides funding for utility operations.

b. Escrow Fees

In connection with the payment of dividends to unit holders, APUC incurs escrow fees. Escrow fees are incurred to ensure continued access to capital and ensure continuing and ongoing investments by shareholders. Without such escrow fees, APUC's subsidiaries would not have a readily available source of capital funding.

c. Unit Holder Communications

Unit holder communication costs are incurred to comply with filing and regulatory requirements of the Toronto Stock Exchange and meet the expectations of shareholders. These costs include items such as news releases and unit holder conference calls. In the absence of shareholder communication costs, investors would not invest in the units of APUC, and in turn, APUC would not have capital to invest in its subsidiaries. With such communications services, the subsidiaries would not have a readily available source of capital funding.

3. APUC FINANCIAL CONTROLS

Financial control costs incurred by APUC include costs for audit services and tax services. These costs are necessary to ensure that the subsidiaries are operating in a manner that meets audit standards and regulatory requirements, which have strong financial and operational controls, and financial transactions are recorded

COST ALLOCATION MANUAL

accurately and prudently. Without these services, the regulated utilities would not have a readily available source of capital funding.

a. Audit Fees

Audits are done on a yearly basis and reviews are performed quarterly on all facilities owned by APUC on an aggregate level. These corporate parent level audits reduce the cost of the stand-alone audits significantly for utilities which must perform its own separate audits. Where stand-alone audits are not required, ratepayers receive benefits of additional financial rigor, as well as access to capital, and financial soundness checks by third parties. Finally, during rate cases, the existence of audits provides staff and intervenors additional reliance on the company records, thus reducing overall rate case costs. The aggregate audit is necessary for the regulated utilities to have continued access to capital markets and unit holders.

b. Tax Services

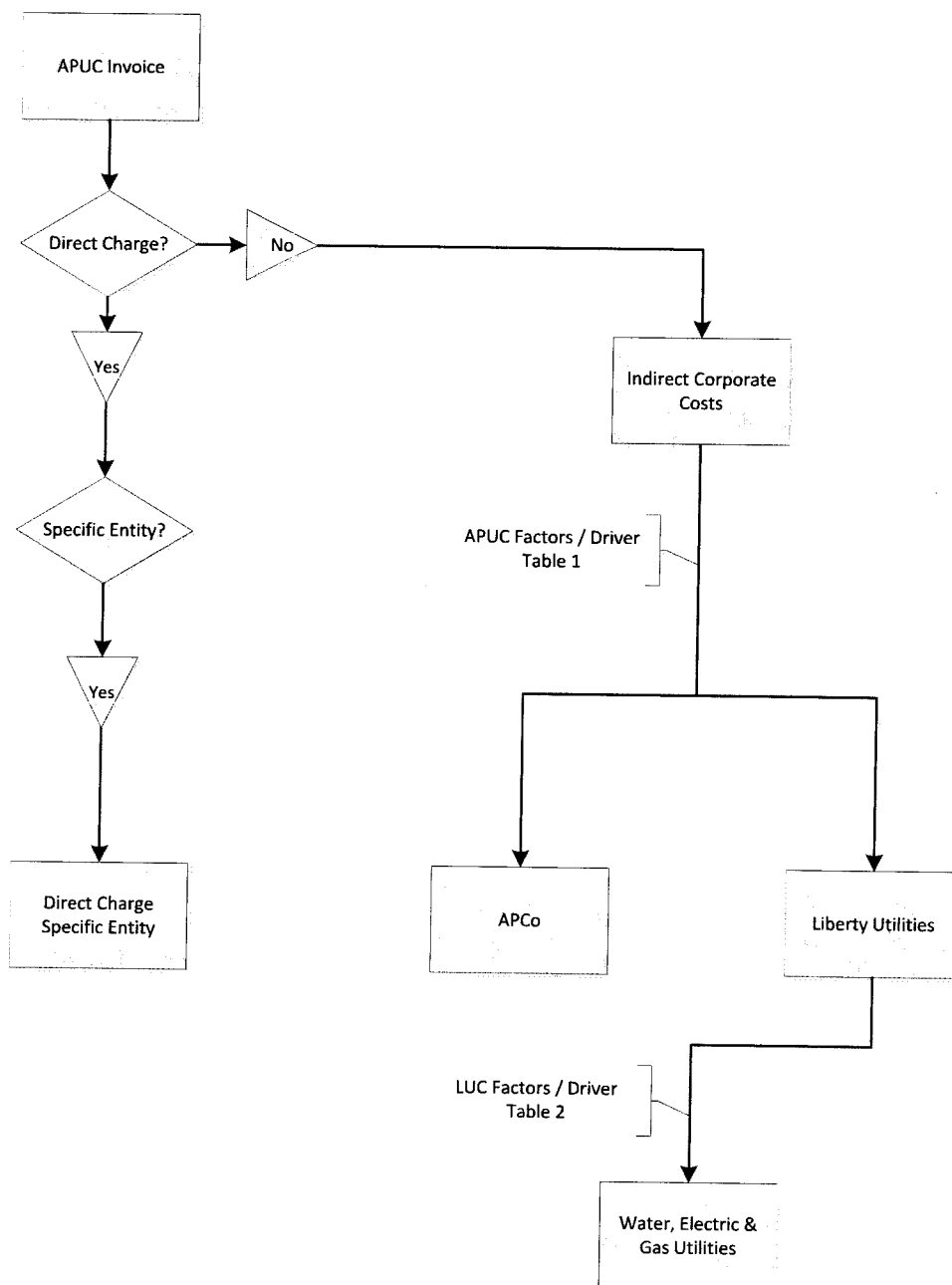
Taxes are paid on behalf of the regulated utilities at the parent level as part of a consolidated United States tax return. Tax services such as planning and filing are provided by third parties. Filing tax returns on a consolidated basis benefits each regulated utility by reducing the costs that otherwise would be incurred by such utility in filing its own separate tax return.

4. APUC ADMINISTRATIVE COSTS

Finally, administrative costs incurred by APUC such as rent, depreciation of office furniture, depreciation of computers, and general office costs are required to house all the services mentioned above. Without these administrative costs, the employees of APUC could not perform their work and provide the necessary services to the regulated utilities. These administrative costs also include training for corporate employees.

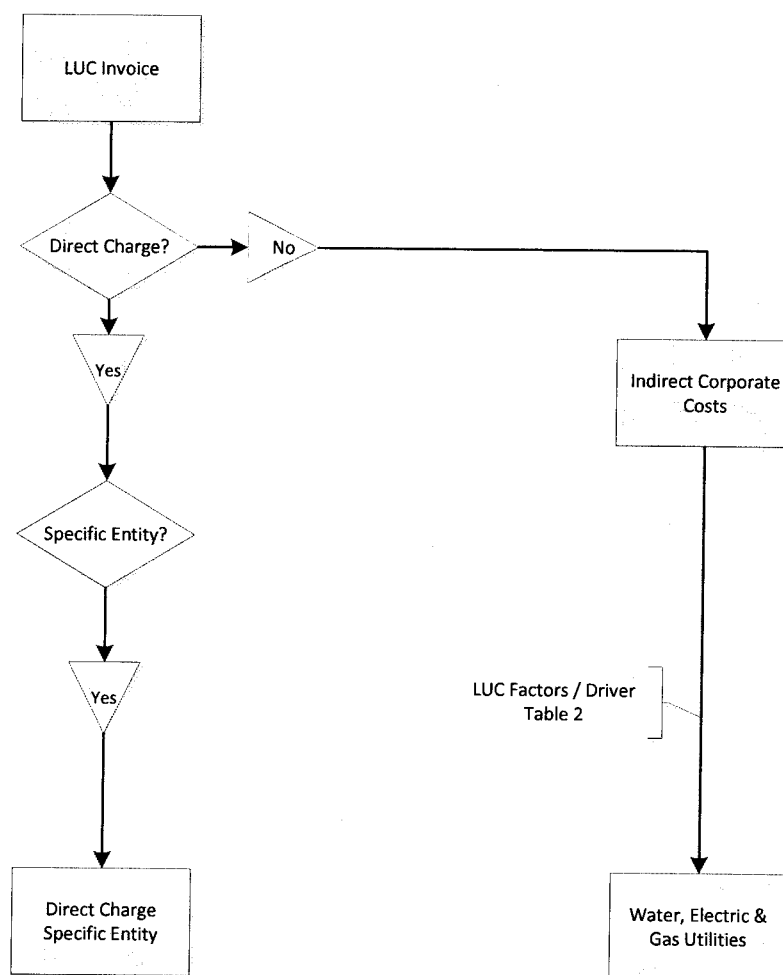
APPENDIX 3 – LIFE OF AN APUC INVOICE

A schematic is provided below showing the trail of an invoice received by APUC for services to be charged to its subsidiaries. The schematic is intended to visually explain the distribution of charges from APUC to APCo and Liberty Utilities companies.



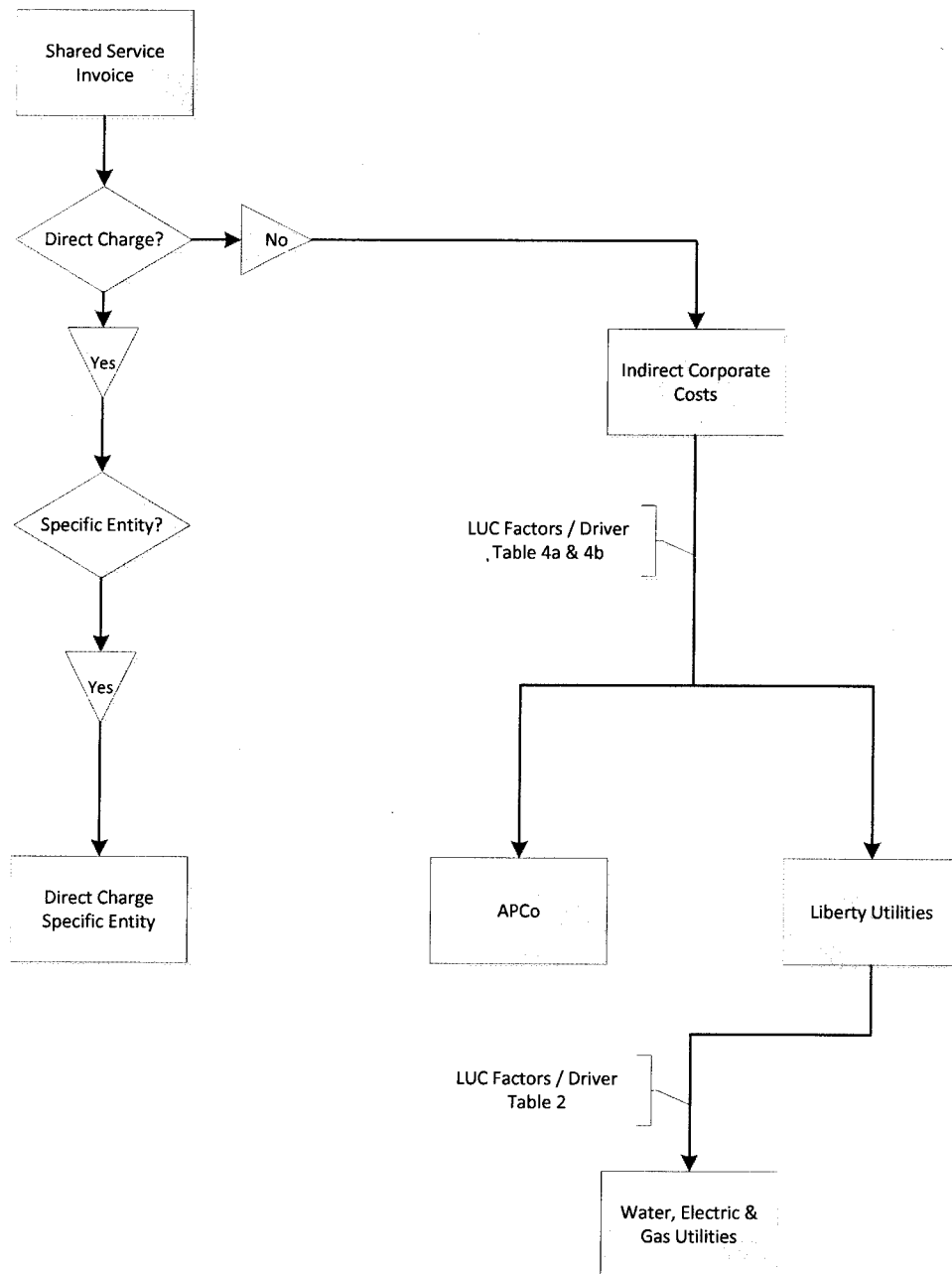
APPENDIX 4 – LIFE OF A LIBERTY UTILITIES INVOICE

A schematic is provided below showing the trail of an invoice received by Liberty Utilities (LUC) for services to be charged to its subsidiaries. The schematic is intended to visually explain the distribution of charges from LUC to Liberty Utilities companies.



APPENDIX 5 – LIFE OF A SHARED SERVICES INVOICE

A schematic is provided below showing the trail of an invoice for shared services provided within Liberty Utilities for services to be charged to affiliates and subsidiaries. The schematic is intended to visually explain the distribution of charges from shared services to APCo and Liberty Utilities companies.



1 SHAPIRO LAW FIRM, P.C.
Jay L. Shapiro (No. 014650)
2 1819 E. Morten Avenue, Suite 280
Phoenix, Arizona 85020
3 Telephone (602) 559-9575

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Todd C. Wiley (No. 015358)
5 12725 W. Indian School Road, Suite D-101
Avondale, Arizona 85392

6 Attorneys for Liberty Utilities (Entrada Del Oro Sewer) Corp.
7

8 **BEFORE THE ARIZONA CORPORATION COMMISSION**
9

10 IN THE MATTER OF THE APPLICATION
11 OF LIBERTY UTILITIES (ENTRADA DEL
ORO SEWER) CORP., AN ARIZONA
12 CORPORATION, FOR A
DETERMINATION OF THE FAIR VALUE
13 OF ITS UTILITY PLANTS AND
PROPERTY AND FOR INCREASES IN ITS
14 WATER RATES AND CHARGES FOR
UTILITY SERVICE BASED THEREON.

DOCKET NO: SW-04316A-15-_____

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18 **DIRECT TESTIMONY OF**
19 **THOMAS J. BOURASSA**

20
21 **RATE BASE, INCOME STATEMENT AND RATE DESIGN**
22

23 **March 3, 2016**
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1 **I. INTRODUCTION.**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is Thomas J. Bourassa. My business address is 139 W. Wood Drive,
4 Phoenix, Arizona 85029.

5 **Q. WHAT IS YOUR PROFESSION AND BACKGROUND?**

6 A. I am a self-employed, Certified Public Accountant providing consulting and general
7 accounting services to utility companies. I have a B.S. in Chemistry and Accounting
8 from Northern Arizona University (1980) and an M.B.A. with an emphasis in
9 Finance from the University of Phoenix (1991).

10 **Q. WOULD YOU BRIEFLY SUMMARIZE YOUR PRIOR WORK AND**
11 **REGULATORY EXPERIENCE?**

12 A. Prior to becoming a private consultant, I was employed by High-Tech Institute, Inc.,
13 and served as controller and chief financial officer. Prior to working for High-Tech
14 Institute, I worked as a division controller for the Apollo Group, Inc. Before joining
15 the Apollo Group, I was employed at Kozoman & Kermode, CPAs. In that position,
16 I prepared compilations and other write-up work for water and wastewater utilities,
17 as well as tax returns.

18 In my private practice, I have prepared and/or assisted in the preparation of
19 numerous water and wastewater utilities rate applications before the Arizona
20 Corporation Commission ("Commission"). A copy of my regulatory work
21 experience is attached as **Exhibit TJB-DT1**.

22 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?**

23 A. On behalf of Liberty Utilities (Entrada Del Oro Sewer) Corp. ("Liberty EDO" or the
24 "Company"). Liberty EDO is seeking a determination of its fair value rate base
25 ("FVRB") and the setting of rates and charges for utility service based on that
26 finding.

1 For convenience, my direct testimony is being filed in two volumes. In this
2 volume, I address rate base, income statement (revenue and operating expenses),
3 required increase in revenue, and rate design and proposed rates and charges for
4 service.

5 **Q. WHAT IS THE PURPOSE OF THIS VOLUME OF YOUR DIRECT**
6 **TESTIMONY?**

7 A. To address all the components of the revenue requirement and rates, except cost of
8 capital. I am sponsoring the direct schedules (A through C and E, F and H), which
9 are filed concurrently herewith. I was responsible for the preparation of these
10 schedules based on my investigation and review of Liberty EDO's relevant books
11 and records. The Company has not prepared a cost of service study (G schedules).
12 Consequently, the G Schedules are omitted.

13 **Q. WHY DIDN'T THE COMPANY PREPARE A COST OF SERVICE STUDY?**

14 A. Primarily because cost of service schedules are not required for a Class D utility.
15 Nor is an expensive cost of service study necessary to set rates in this proceeding.
16 In fact, the Commission does not typically set rates for water and wastewater utility
17 service based on cost of service. Additionally, none of the changes to the rate designs
18 the Company is proposing necessitate the substantial additional expense of doing a
19 cost of service study. Besides, the Company has only one class of customer, the
20 residential class, at this time, meaning a cost of service study would not be very
21 meaningful under the circumstances.

22 **Q. PLEASE CONTINUE.**

23 A. In a second, separate volume of my direct testimony, I address cost of capital and
24 sponsor the D schedules. As shown on the D-1 Schedules, the proposed capital
25 structure for the Company is 30 percent debt and 70 percent equity.¹ Liberty EDO's

26 ¹ EDO currently has no debt in its capital structure. However, the Company is concurrently

1 proposed cost of long-term debt is 3.50 percent and required cost of common equity
2 is 12.0 percent. The weighted average cost of capital ("WACC") for the Company
3 is 9.45 percent. Liberty EDO is further proposing a fair value rate of return
4 ("FVROR") of 6.92 percent. This FVROR is based on the methodology adopted by
5 the Commission in several recent rate cases.

6 **II. OVERVIEW OF APPLICATION.**

7 **Q. PLEASE SUMMARIZE LIBERTY EDO'S APPLICATION.**

8 A. Liberty EDO is seeking a revenue increase of 90.53 percent. The test year used is
9 the 12-month period ending October 31, 2015. Liberty EDO's revenue requirement
10 increase is based on an Original Cost Rate Base ("OCRB") of \$1,489,794 and a
11 Reconstruction Cost New Less Depreciation Rate Base ("RCRB") of \$2,820,167,
12 resulting in FVRB of \$2,154,980 using a traditional 50/50 weighting of OCRB and
13 RCRB.

14 Liberty EDO has also proposed certain pro forma adjustments to take into
15 account known and measurable changes to rate base, expenses, and revenues. These
16 pro forma adjustments are consistent with normal ratemaking and are contemplated
17 by the Commission's rules and regulations governing rate applications.² These
18 adjustments are necessary to obtain a more normal or realistic relationship between
19 revenues, expenses, and rate base on a going-forward basis.

20 The increase in revenues to provide for recovery of operating expenses and a
21 6.92 percent return on FVRB is approximately \$254,643, an increase of
22 approximately 90.53 percent over the adjusted and annualized test year revenues.

23 The Company is proposing a 2-year phase-in of rates with recovery of the foregone

24
25 seeking financing approval that, if granted, would result in a capital structure with 30
percent debt.

26 ² See A.A.C. R14-2-103.

1 revenues during the phase-in period (plus interest) in the 12 months following the
2 end of the 2-year phase-in period.

3 **A. Summary of A, E and F Schedules.**

4 **Q. MR. BOURASSA, LET'S TURN TO LIBERTY EDO'S SCHEDULES.**
5 **PLEASE DESCRIBE THE SCHEDULES LABELED AS A, E, AND F.**

6 A. The A-1 Schedule is a summary of the rate base, operating income, current operating
7 margin, required operating margin, operating income deficiency, and the increase in
8 gross revenue. Present and proposed revenues and customer classifications are also
9 shown on this schedule.

10 The A-2 Schedule is a summary of results of operations for the test year, prior
11 years, and a projected year at present rates and proposed rates.

12 Schedule A-3 contains Liberty EDO's capital structure for the test year and
13 the two prior years.

14 Schedule A-4 contains the plant construction and plant-in-service for the test
15 year and prior years. The projected plant additions are also shown on this schedule.

16 Schedule A-5 is the summary of the changes in financial position (cash flow)
17 for the prior two years, the test year at present rates, and a projected year at present
18 and proposed rates.

19 The E Schedules are based on Liberty EDO's actual operating results, as
20 reported in annual reports filed with the Commission. The E-1 Schedule contains
21 the comparative balance sheet data for the years 2013, 2014, and 2015 ending on
22 October 31.

23 Schedule E-2, page 1, contains the income statement for the years 2013, 2014,
24 and 2015 ending on October 31.

25 Schedule E-3 contains the statements of changes in Liberty EDO's financial
26 position for the test year and the two prior years.

1 Schedule E-4 provides the changes in membership equity.

2 Schedule E-5 contains plant-in-service at the end of the test year, and one year
3 prior to the end of the test year.

4 Schedule E-7 contains operating statistics for the years ended 2012, 2013, and
5 2014 ending on October 31.

6 Schedule E-8 contains the taxes charged to operations.

7 The accountant's notes to the financial statements and the financial
8 assumptions used in preparing the rate filing schedules are shown on Schedules E-9
9 and F-4, respectively, in accordance with the Commission's standard filing
10 requirements.

11 Schedule F-1 contains the results of operations at the present rates (actual and
12 adjusted) and at proposed rates.

13 Schedule F-2 contains the summary of changes in financial position (cash
14 flow) for the prior two years, the test year at present rates, and a projected year at
15 present and proposed rates.

16 Schedule F-3 shows the Liberty EDO's projected construction requirements
17 for 2016, 2017, and 2018.

18 Schedule F-4 contains the assumptions used in developing the adjustments
19 and projections contained in the rate filing.

20 **B. Rate Base (B Schedules).**

21 **Q. PLEASE EXPLAIN THE B-1 SCHEDULE.**

22 A. Schedule B-1 summarizes the OCRB, RCRB and the FVRB. As already noted, the
23 FVRB is determined using a traditional 50/50 weighting of OCRB and RCRB.
24
25
26

1 **1. OCRB Schedules.**

2 **Q. HAVE YOU PREPARED SCHEDULES SHOWING ADJUSTMENTS TO**
3 **THE ORIGINAL COST RATE BASE?**

4 A. Yes. Schedule B-2 shows adjustments to the OCRB cost rate base proposed by
5 Liberty EDO. Schedule B-2, pages 2 through 5, provides the supporting
6 information.

7 **a. Plant-in-Service and Accumulated Depreciation.**

8 **Q. PLEASE DISCUSS THE PIS ADJUSTMENTS.**

9 A. B-2 adjustment number 1, as shown on Schedule B-2, page 2, adjusts plant-in-
10 service ("PIS"). There are four PIS adjustments included in Adjustment 1. These
11 are shown on Schedule B-2, page 3, and are labeled as adjustments "A," "B," "C,"
12 and "D."

13 Adjustment "A" of B-2 adjustment number 1 removes \$748 of capitalized
14 affiliate profit recorded to PIS since the end of the last test year.

15 Adjustment "B" of B-2 adjustment number 1 increases PIS for allocated
16 corporate plant totaling \$27,309.

17 Adjustment "C" of B-2 adjustment number 1 reduces PIS by \$299,000. This
18 adjustment is for capacity that will be held for future use as discussed in more detail
19 in Mr. Garlick's direct testimony.³

20 Adjustment "D" of B-2, adjustment number 1, adjusts PIS to reflect the
21 reconciliation of the Company's PIS detail to recorded general ledger amounts as
22 reflected on Schedule E-1.

23 **Q. PLEASE DISCUSS THE A/D ADJUSTMENTS.**

24 A. B-2 adjustment number 2, as shown on Schedule B-2, page 2, adjusts A/D. There
25

26 ³ Direct Testimony of Matthew Garlick ("Garlick Dt.") at 10.

1 are four accumulated depreciation ("A/D") adjustments included in Adjustment 2.
2 These are shown on Schedule B-2, page 4, and are labeled as adjustments "A," "B,"
3 "C," and "D."

4 Adjustment "A" of B-2 adjustment number 2 removes \$152 of A/D related to
5 affiliate profit recorded to PIS since the end of the last test year.

6 Adjustment "B" of B-2 adjustment number 2 increases A/D by \$6,599 for
7 A/D related to allocated corporate plant.

8 Adjustment "C" of B-2 adjustment number 2 reduces A/D by \$145,848 for
9 A/D related to the plant held for future use.

10 Adjustment "D" of B-2, adjustment number 2, adjusts A/D to reflect the
11 reconciliation of the Company's PIS detail to recorded general ledger amounts as
12 reflected on Schedule E-1.

13 **Q. DO THE PLANT AND A/D BALANCES SHOWN ON SCHEDULE B-2**
14 **REFLECT THE LAST COMMISSION RATE ORDER FOR LIBERTY**
15 **EDO?**

16 **A.** Yes. The Company's reconstruction of the PIS balance started with the PIS balance
17 approved in the last rate case. Plant additions and retirements since the end of the
18 last test year have been added to and deducted from total plant shown on Schedule
19 B-2, pages 3.5 to 3.14. Pages 3.5 to 3.14 of the schedule also show the details for
20 the A/D from the end of the last test year through the end of the test year using the
21 half-year convention for depreciation.

22 **b. Contributions-in-Aid of Construction and Accumulated**
23 **Amortization.**

24 **Q. PLEASE DISCUSS THE CIAC ADJUSTMENTS.**

25 **A.** Adjustment number 3, shown on Schedule B-2, page 2, reflects an increase to
26 contributions-in-aid of construction ("CIAC") for contributions recorded by the

1 prior owners that were not reflected on Liberty EDO's books at the end of the test
2 year. Adjustment number 3 also increases accumulated amortization ("A.A.") to
3 reflect the reconstructed balance through the end of the test year.

4 **Q. WHY WEREN'T THESE CONTRIBUTIONS REFLECTED ON THE**
5 **BOOKS OF LIBERTY EDO AT THE END OF THE TEST YEAR?**

6 A. I am not sure. At the time of transfer of ownership from the prior owners, the books
7 did not reflect any CIAC. However, the 2006 ACC annual report reflected CIAC in
8 the amount of \$1,013,532 at the end of 2006, then the 2007 and subsequent ACC
9 annual reports reflected no CIAC. The Company cannot explain why the CIAC was
10 eliminated in 2007. However, in an effort to eliminate any potential dispute in the
11 instant case over the existence of CIAC, the Company decided to add back the
12 CIAC.

13 **Q. WHAT PLANT DID THE CIAC FINANCE?**

14 A. Based upon information gleaned from the Company's CC&N proceeding,⁴ it
15 appears that the CIAC was used to fund land costs of \$400,000 and the remaining
16 \$613,352 was used to fund collection main and customer services.

17 **c. Accumulated Deferred Income Taxes.**

18 **Q. PLEASE DISCUSS THE ADIT ADJUSTMENT.**

19 A. Adjustment number 4, shown on Schedule B-2, page 2, reflects the computed
20 deferred income taxes at the end of the test year. The Company's computation is
21 based on the adjusted PIS, A/D, Advances-in-Aid of Construction ("AIAC"), and
22 CIAC balances in the instant case and the adjusted tax basis of its assets using the
23 effective tax rates computed on the Schedule C-3, page 2. The detail of the
24

25
26 ⁴ See Docket No. SW-04316A-05-0371.

1 Company's deferred income tax computation is shown on Schedule B-2, pages 6.0
2 and 6.1.

3 **d. Cash Working Capital.**

4 **Q. PLEASE DISCUSS THE WORKING CAPITAL ADJUSTMENT.**

5 A. Adjustment number 5, shown on Schedule B-2, page 2, reflects the Company
6 proposed cash working capital allowance. The Company's proposed cash working
7 capital allowance of a negative \$23,189 is based upon a lead-lag study prepared by
8 the Company and summarized on Schedule B-5.

9 **2. RCRB Schedules.**

10 **Q. PLEASE BRIEFLY EXPLAIN RCRB.**

11 A. The ACC has defined RCRB in Title 14 as:

12 An amount consisting of the depreciated reconstruction
13 cost new of the property (exclusive of contributions and/or
14 advances in aid of construction) at the end of the Test-Year,
15 used and useful, plus a proper allowance for working capital
16 and including all applicable pro forma adjustments. Contributions and advances in aid of construction, if recorded in the accounts of the public service corporation, shall be increased to a reconstruction new basis.⁵

17 The term Reconstruction Cost New ("RCN") is the estimated cost of constructing
18 the utility's property in today's cost levels; this is typically done through a trending
19 study or through an engineering study using current cost estimates from RS Means,⁶
20 construction bids, or inflation indexes. RCRB refers to the net amount after
21 deducting accumulated depreciation and amortization.

22
23
24 ⁵ A.A.C. R14-2-103(A)(3)(n).

25 ⁶ RS Means Construction Publishers and Consultants, 63 Smiths Lane, Kingston, MA
26 02364-0800,

1 **Q. PLEASE EXPLAIN THE BASIS FOR DETERMINING THE RCRB.**

2 A. The RCN for all PIS is summarized on Schedule B-4 from the results of an
3 engineering study prepared by NCS Engineers. Schedule B-4 also reflects
4 miscellaneous plant items like office furniture and equipment, communications
5 equipment, laboratory equipment, etc. at original cost. These plant items were not
6 restated to an RCN basis because the net book value of the miscellaneous plant is
7 insignificant (only about \$10,000). The Schedule B-4 RCN plant is then
8 summarized on Schedule B-3, page 3.

9 **Q. HAVE YOU PREPARED SCHEDULES SHOWING ADJUSTMENTS TO**
10 **THE RCRB?**

11 A. Yes. Schedule B-3 shows adjustments to the RCRB cost rate base proposed by
12 Liberty EDO. Schedule B-3, pages 2 through 7, provides the supporting
13 information.

14 **3. PIS and A/D.**

15 **Q. PLEASE DISCUSS THE PIS ADJUSTMENTS.**

16 A. B-3 adjustment number 1, as shown on Schedule B-3, page 2, adjusts RCN PIS.
17 There are two RCN PIS adjustments included in Adjustment 1. These are shown on
18 Schedule B-3, page 3, and are labeled as adjustments "A" and "B."

19 Adjustment "B" of B-3 adjustment number 1 increases RCN PIS for allocated
20 corporate plant totaling \$27,309.

21 Adjustment "B" of B-3 adjustment number 1 reduces RCN PIS for plant held
22 for future use by \$335,023.

23 **Q. PLEASE DISCUSS THE A/D ADJUSTMENTS.**

24 A. B-3 adjustment number 2, as shown on Schedule B-3, page 2, adjusts RCN A/D.
25 There are two RCN A/D adjustments included in Adjustment 2. These are shown
26 on Schedule B-3, page 4, and are labeled as adjustments "A" and "B."

1 Adjustment "B" of B-3 adjustment number 2 increases RCN A/D for
2 allocated corporate plant totaling \$4,101.

3 Adjustment "B" of B-3 adjustment number 2 reduces RCN A/D for plant held
4 for future use totaling \$154,349.

5 **Q. HOW WAS THE RCN A/D BALANCE DETERMINED BEFORE MAKING**
6 **AN ADJUSTMENT FOR CORPORATE PIS AND PLANT HELD FOR**
7 **FUTURE USE?**

8 A. A/D reported on a RCN basis was computed by multiplying the corresponding
9 original cost A/D balance by a ratio, the numerator of which is gross RCN plant, and
10 the denominator of which is gross original cost RCN plant. Schedule B-4 shows the
11 computation of A/D reported on an RCN basis. RCN A/D is then summarized on
12 Schedule B-3, page 4 and adjusted for corporate PIS and plant held for future use.

13 **Q. WHAT ABOUT THE OTHER COMPONENTS OF RCRB?**

14 A. AIAC, CIAC, and A.A. reported on an RCN basis was computed by multiplying the
15 original cost CIAC balance by a ratio, the numerator of which is gross RCN plant,
16 and the denominator of which is gross original cost plant. The details of the
17 computations are shown on Schedule B-3, pages 5 and 6.

18 ADIT reported on an RCN basis was computed by multiplying the original
19 cost ADIT balance by a ratio, the numerator of which is RCRB before ADIT, and
20 the denominator of which is OCRB before ADIT.

21 All other rate base elements such as customer deposits, prepayments and cash
22 working capital are reflected at original cost as these are already stated in current
23 dollars.

1 a. **CIAC and A.A.**

2 **Q. PLEASE DISCUSS THE CIAC ADJUSTMENTS.**

3 A. Adjustment number 3, shown on Schedule B-3, page 2, reflects CIAC and A.A. at
4 their reported RCN basis.

5 b. **AIAC.**

6 **Q. PLEASE DISCUSS THE AIAC ADJUSTMENTS.**

7 A. Adjustment number 4, shown on Schedule B-3, page 2, reflects AIAC at its reported
8 RCN basis.

9 c. **ADIT.**

10 **Q. PLEASE DISCUSS THE ADIT ADJUSTMENT.**

11 A. Adjustment number 5, shown on Schedule B-2, page 2, reflects the ADIT balance
12 at the reported RCN basis.

13 d. **Cash Working Capital.**

14 **Q. PLEASE DISCUSS THE AIAC ADJUSTMENTS.**

15 A. Adjustment number 5, shown on Schedule B-3, page 2, reflects CWC at the reported
16 RCN basis.

17 4. **Income Statement (C Schedules).**

18 **Q. WOULD YOU EXPLAIN THE C SCHEDULES?**

19 A. Schedule C-1, page 1 summarizes the test year actual and adjusted revenues and
20 expenses. Schedule C-1, page 2 shows the individual adjustments to the test year.
21 The following is a summary of adjustments shown on Schedule C-1, pages 2.1 and
22 2.2:

23 Adjustment 1 annualizes depreciation expense. The proposed depreciation
24 rate for each component of utility plant is shown on Schedule C-2, page 2.
25 The depreciation rates approved in the last rate case were plant account specific.
26 The Company proposes to continue to use account specific rates on a going forward

1 basis.

2 Adjustment 2 increases the property taxes based on proposed revenues.
3 The details of the computation are shown on Schedule C-2, page 3.

4 Adjustment 3 shows the annual rate case expense estimated by the Company.
5 The Company estimates total rate case expense of \$130,000. The Company proposes
6 that rate case expense be recovered over three years (or \$43,333 annually). The three
7 year amortization period is consistent with the period of time it will take for the
8 Company to complete the phase in and collect the deferred revenues. It is also
9 reasonable to assume that the Company will have to file another rate case in the next
10 2-4 years given that this is its first ever rate case. This is also consistent with how
11 often Liberty generally tries to bring its operating utilities in for new rates.

12 **Q. THANK YOU. HOW WAS THE TOTAL RATE CASE EXPENSE AMOUNT**
13 **DETERMINED?**

14 **A.** The \$130,000 is an estimate based on the minimum cost to bring any utility to the
15 Commission for a rate case that includes preparing a direct filing, responding to and
16 conducting discovery, multiple rounds of prefiled testimony, a hearing and briefing.
17 This is also the Company's first general rate case, and we have had to address the
18 prior owner's failure to keep account of CIAC, the plant held for future use, and
19 develop a phase in of rates for the reasons explained by Mr. Garlick.⁷ Given that,
20 lead counsel and I developed this estimated amount of rate case expense. Obviously,
21 we can only estimate the cost of a rate case at the outset, and we can revisit this
22 amount if circumstances differ from our expectations, making the rate case cost more
23 or less than the estimate.

24
25
26 ⁷ Garlick Dt. at 10-12, 15-17.

1 Q. OKAY, PLEASE CONTINUE WITH YOUR DISCUSSION OF THE
2 EXPENSE ADJUSTMENTS.

3 A. Adjustment 4 annualizes revenues to the year-end number of customers and reduces
4 revenues by \$1,470. The annualization of revenues is based on the number of
5 customers at the end of the test year, compared to the actual number of customers
6 during each month of the test year. Average revenues per customer by month were
7 computed for the test year and then multiplied by the increase (or decrease) in
8 number of customers for each month of the test year. The total of the monthly
9 revenue change comprises the revenue annualization.

10 Adjustment 5 increases Contractual Services – Professional by \$3,882 to
11 reflect a true-up of test-year allocated corporate non-labor costs. Those corporate
12 costs are incurred by entities in the Liberty Utilities and Algonquin Power & Utilities
13 Corp. family of companies in providing necessary and useful services to Liberty
14 EDO and other regulated utilities. The true-up includes removing expenses for
15 which the Company is not seeking recovery from ratepayers. William Killeen,
16 Liberty Utilities' Director of Regulatory Strategy, explains Liberty Utilities'
17 corporate cost allocation methodologies and Cost Allocation Manual in more detail
18 in his direct testimony.

19 Adjustment 6 increases Contractual Services – Professional by \$1,135 for
20 allocated corporate labor expected wages increases in 2016 and 2017.

21 Adjustment 7 adjusts interest expense to reflect interest synchronization with
22 rate base.

23 Adjustment 8 reflects income taxes based upon the Company adjusted test
24 year revenues and expenses.

1 5. Rate Design (H Schedules).

2 **Q. WHAT ARE LIBERTY EDO'S PRESENT RATES FOR WASTEWATER**
3 **SERVICE?**

4 A. The present rates are set forth on Schedule H-3, pages 1 through 3.

5 **Q. WHAT ARE LIBERTY EDO'S PROPOSED RATES FOR WASTEWATER**
6 **SERVICE?**

7 A. The proposed rates are set forth on Schedule H-3, pages 1 through 3.

8 **Q. IS LIBERTY EDO PROPOSING CHANGES TO THE BASIC RATE**
9 **DESIGN?**

10 A. No, although the Company is proposing to phase in the rate increases for the reasons
11 explained in Mr. Garlick's direct testimony.⁸

12 **Q. HOW WOULD THIS PHASE IN WORK?**

13 A. The Company proposes that 70 percent of the rate increase be implemented in the
14 first year, and then 100 percent of the rate increase would be implemented in the
15 second year. In the third year, the Company proposes a surcharge to recover the
16 deferred revenues from the phase in period, plus interest. The following sets forth
17 the proposed rates and surcharges for the three year period:

	<u>Current</u> <u>Rates</u>	<u>Year 1</u> <u>Rates</u>	<u>Year 2</u> <u>Rates</u>	<u>Year 3</u> <u>Rates</u>	<u>Year 4</u> <u>Rates</u>
Monthly Charge - Residential	\$ 70.00	\$ 70.00	\$114.61	\$133.74	\$133.74
Increase in Rate		44.61	19.12		
Surcharge				21.76	
Total Monthly Charge	\$ 70.00	\$114.61	\$133.74	\$155.50	\$133.74
% Increase Yr. over Yr.		63.74%	16.68%	16.27%	-16.27%

23 **Q. HAVE YOU PREPARED AN EXHIBIT SHOWING THE COMPUTATION**
24 **OF THE SURCHARGE?**

25 A. Yes. Attached as **Exhibit TJB- DT2** is a schedule showing the computation of the

26 ⁸ Garlick Dt. at 15-17.

1 surcharge.

2 **Q. WHY DID YOU INCLUDE AN INTEREST COMPONENT AND WHAT**
3 **RATE DID YOU USE?**

4 A. I used the FVROR of 6.92 percent.

5 **Q. ARE THERE ANY PROPOSED CHANGES TO THE LIBERTY EDO**
6 **MISCELLANEOUS CHARGES?**

7 A. Yes. Notably, the Company is proposing to: 1) reduce the Establishment Charge
8 from \$30 to \$25; 2) eliminate the Establishment charge (after hours) and add an After
9 Hours Service charge of \$50 for all service performed after hours (the After Hours
10 Service Charge would be in addition to the regular hours service charge); and 3)
11 change the Reconnection (delinquent) charge from \$60 to the actual cost of physical
12 disconnection.

13 a. **Purchased Power Adjuster Mechanism and Property Tax**
14 **Adjuster Mechanism.**

15 **Q. PLEASE DISCUSS THE COMPANY PROPOSED PPAM AND PTAM.**

16 A. As discussed by Mr. Garlick in his direct testimony, the Company is seeking
17 Commission approval of two adjuster mechanisms: 1) a Purchased Power Adjuster
18 Mechanism ("PPAM"); and 2) a Property Tax Adjuster Mechanism ("PTAM").⁹
19 The PPAM allows Liberty EDO to increase rates in order to recover increases in
20 purchased power costs resulting from increases in the rates charged by Arizona
21 Public Service, our electric utility provider. The PTAM would allow rates to adjust,
22 up or down, based on changes in the property tax rate and/or assessment ratios.

23 **Q. HOW WOULD THE PPAM WORK?**

24 A. The PPAM isolates changes in purchased power cost that is due exclusively to a rate
25

26 ⁹ See Garlick Dt. at 13-15.

1 change beyond the control of the Company. The increases/decreases in power costs
2 will be allocated on a per customer basis and passed-through to the customer as a
3 separate line item on the customer bill. The PPAM Plan of Administration ("POA"),
4 attached to the Application as Attachment 3, outlines the implementation and filing
5 requirements as well as how the surcharge will be computed. The form of the PPAM
6 proposed by the Company is consistent with the form of PPAM approved in Decision
7 No. 74437 (April 18, 2014) for Liberty Utilities (Litchfield Park Water & Sewer)
8 Corp.

9 **Q. HOW WOULD THE PTAM WORK?**

10 A. The PTAM isolates changes in property taxes that are due to assessment ratio and
11 rate charges that are beyond the control of the Company. The increases/decreases in
12 property taxes will be allocated on a per customer basis and passed-through to the
13 customer as a separate line item on the customer bill. The PTAM POA, attached to
14 the Application as Attachment 4, outlines the implementation and filing
15 requirements as well as how the surcharge will be computed.

16 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY ON RATE BASE,**
17 **INCOME STATEMENT AND RATE DESIGN?**

18 A. Yes.
19
20
21
22
23
24
25
26

TJB-DT1

RESUME OF THOMAS J. BOURASSA, CPA

EDUCATIONAL BACKGROUND

B.S. Northern Arizona University Chemistry/Accounting (1980)

M.B.A. University of Phoenix with Emphasis in Finance (1991)

C.P.A. State of Arizona (1995)

Continuing Professional Education – In areas of tax, accounting, management, economics, finance, business valuation, consulting, and ethics (80 hrs every two years)

MEMBERSHIPS

Arizona Society of CPAs

Water Utilities Association of Arizona

American Water Works Association

Society of Regulatory Financial Analysts

EMPLOYMENT EXPERIENCE

1995 – Present	<p>CPA - Self Employed</p> <p>Consultant to utilities on regulatory matters including all aspects of rate applications (rate base, income statement, cost of capital, cost of service, and rate design), rate reviews, certificates of convenience and necessity (CC&N), CC&N extensions, financing applications, accounting order applications, and off-site facilities hook-up fee applications. Provide expert testimony as required.</p> <p>Consult on various aspects of business, financial and accounting matters including best business practices, generally accepted accounting principles, generally accepted ratemaking principles, project analysis, cash flow analysis, regulatory treatment of certain expenditures and investments, business valuations, and rate reviews.</p> <p>Litigation support services.</p>
1992-1995	<p>Employed by High-Tech Institute, Phoenix, Arizona as Controller and C.F.O.</p>
1989-1992	<p>Employed by Alta Technical School, a division of University of Phoenix as Division Controller.</p>
1985-1989	<p>Employed by M.L.R. Builders, Tampa and Pensacola, Florida as Operations/Accounting Manager</p>
1982-1985	<p>Employed by and part owner in Area Sand and Clay Company, Pensacola, Florida.</p>

1981-1982

Employed by Purdue University, West Lafayette, Indiana as
Teaching Assistant.

**SUMMARY OF REGULATORY WORK EXPERIENCE AS SELF EMPLOYED
CONSULTANT**

<u>COMPANY/CLIENT</u>	<u>FUNCTION</u>
Tierra Buena Water Company ACC Docket No. W-02076A-15-013	Permanent Rate Application – Water. Assisted in preparation of short-form schedules.
Red Rock Utilities, LLC ACC Docket No. W-04245A-14-0295	Permanent Rate Application – Water and Wastewater. Prepared schedules and testified on Rate Base, Plant, Income Statement, Revenue Requirement, Rate Design, and Cost of Capital.
Quail Creek Water Company ACC Docket No. W-02514A-14-0370	Permanent Rate Application – Water. Prepared schedules and testified on Rate Base, Plant, Income Statement, Revenue Requirement, Rate Design, and Cost of Capital.
Tonto Basin Water Company ACC Docket No. W-03515A-14-0310	Permanent Rate Application – Water. Prepared short-form schedules for Rate Base, Income Statement, Plant, Bill Counts, and Rate Design.
Navajo Water ACC Docket No. W-03511A-14-304	Permanent Rate Application – Water. Prepared short-form schedules for Rate Base, Income Statement, Plant, Bill Counts, and Rate Design.
Alaska Power Company Regulatory Commission of Alaska Docket No. U-14-002	Prepared schedules and testified on cost of capital.
Anchorage Municipal Light & Power Regulatory Commission of Alaska Docket No. U-13-184	Prepared schedules and testified on cost of capital.
Liberty Utilities (Pine Bluff) Inc. Arkansas Public Service Commission Docket No. 14-020-U	Permanent Rate Application – Prepared schedules and testified on Rate Base, Plant, Income Statement, Revenue Requirement, Cost of Service, Rate Design, and Cost of Capital.
Abra Water Company	Permanent Rate Application – Prepared

COMPANY/CLIENT

ACC Docket No. W-01782A-14-0084

EPCOR Water Arizona, Inc.

ACC Docket No. W-01303A-14-0010

Liberty Utilities (Midstates Natural Gas),
Inc.

Missouri Public Service Commission
Case No. GR-2014-0152

Hydro Resources, LLC.

ACC Docket No. W-20770A-13-0313

Little Park Water Company

ACC Docket No. W-02192A-13-0336

Utility Source, LLC.

ACC Docket No. WS-04235A-13-0331

Payson Water Company

ACC Docket No. W-03514A-13-0111

ACC Docket No. W-03514A-13-0142

Goodman Water Company

FUNCTION

schedules and testified on Rate Base, Plant, Income Statement, Revenue Requirement, Rate Design, and Cost of Capital.

Permanent Rate Application – Prepared rate designs and cost of Service studies for Mohave Water District, Mohave Wastewater District, Paradise Valley Water District, Tubac Water District, and Sun City Water District.

Permanent Rate Application – Assist in preparing required rate application schedules for Rate Base, Plant, Income Statement, Revenue Requirement, and Rate Design.

Certificate of Convenience and Necessity – Water. Prepared pro-forma balance sheets, income statements, plant schedules, rate base, and initial rates.

Permanent Rate Application – Water. Prepared short-form schedules for Rate Base, Income Statement, Plant, Bill Counts, and Rate Design.

Permanent Rate Application – Water and Sewer. Prepared schedules and testified on Rate Base, Plant, Income Statement, Revenue Requirement, Rate Design, and Cost of Capital.

Permanent Rate Application – Water. Prepared schedules and testified on Rate Base, Plant, Income Statement, Revenue Requirement, Rate Design, and Cost of Capital.

Financing Application. Prepared financial ratios and debt surcharge mechanism.

Valuation

COMPANY/CLIENT

Verde Santa Fe Wastewater
ACC Docket No. SW-03437A-13-0292

Lago Del Oro Water Company
ACC Docket No. W-01944A-13-0215

Chaparral City Water Company
ACC Docket No. W-02113A-13-0118

Las Quintas Serenas Water Company
ACC Docket No. W-01583A-13-0117

Southwest Environmental Utilities, Inc.
ACC Docket No. WS-20878A-13-0065

Litchfield park Service Company
ACC Docket No. SW-01428A-13-0043
ACC Docket No. W-01428A-13-0042

Beaver Dam Water Company
ACC Docket No. WS-03067A-12-0232

Rio Rico Utilities
ACC Docket No. WS-02676A-12-0196

Vail Water Company
ACC Docket No. W-01651B-12-0339

FUNCTION

Permanent Rate Application – Sewer.
Prepared schedules and testified on Rate Base, Plant, Income Statement, Revenue Requirement, Rate Design, and Cost of Capital.

Permanent Rate Application – Water.
Prepared schedules and testified on Rate Base, Plant, Income Statement, Revenue Requirement, Cost of Service, Rate Design, and Cost of Capital.

Permanent Rate Application – Prepared and testified on cost of service study.

Permanent Rate Application – Water.
Prepared schedules and testified on Rate Base, Plant, Income Statement, Revenue Requirement, Rate Design, and Cost of Capital.

Certificate of Convenience and Necessity – Water and Wastewater. Prepared pro-forma balance sheets, income statements, plant schedules, rate base, and initial rates.

Permanent Rate Application – Water and Sewer. Prepared schedules and testified on Rate Base, Plant, Income Statement, Revenue Requirement, Rate Design, Cost of Service, and Cost of Capital.

Permanent Rate Application. Prepared schedules on Plant, Income Statement, Revenue Requirement, and Rate Design.

Permanent Rate Application – Water and Sewer. Prepared schedules and testified on Rate Base, Plant, Income Statement, Revenue Requirement, Cost of Service, Rate Design, and Cost of Capital.

Permanent Rate Application. Prepared schedules and testified on Rate Base, Plant, Income Statement, Revenue

COMPANY/CLIENT

FUNCTION

Avra Water Co-Op. ACC Docket No. W-02126A-11-0480	Requirement, Cost of Service, Rate Design, and Cost of Capital. Permanent Rate Application. Prepared schedules and testified on Rate Base, Plant, Income Statement, Revenue Requirement, Cost of Service, Rate Design, and Cost of Capital.
Pima Utility Company ACC Docket No. W-02199A-11-0329 ACC Docket No. SW-02199A-11-0330	Permanent Rate Application – Water and Sewer. Prepared schedules and testified on Rate Base, Plant, Income Statement, Revenue Requirement, Cost of Service, Rate Design, and Cost of Capital. Work on financing application.
Liberty Utilities (CALPECO Electric), LLC Docket No. 11202020	Work on preparation of permanent rate application. Prepared schedules on Rate Base, Plant, Income Statement, Revenue Requirement.
Livco Water Company ACC Docket No. SW-02563A-11-0213	Permanent Rate Application – Water and Sewer. Prepared short-form schedules for Rate Base, Income Statement, Plant, Bill Counts, and Rate Design.
Orange Grove Water Company ACC Docket No. W-02237A-11-0180	Permanent Rate Application. Prepared schedules on Plant, Income Statement, Revenue Requirement, and Rate Design.
Goodman Water Company ACC Docket No. W-02500A-10-0382	Permanent Rate Application – Water. Prepared schedules and testified on Rate Base, Plant, Income Statement, Revenue Requirement, Rate Design, and Cost of Capital.
Doney Park Water ACC Docket No. W-01416A-10-0450	Permanent Rate Application – Water. Prepared schedules and testified on Rate Base, Plant, Income Statement, Revenue Requirement, and Rate Design.
<i>Grimmelmann, et. al. v. Pulte Home Corporation, et. al.</i> , case no. CV-08-1878-PHX-FJM, the United States District Court	Consultant to defendant and expert witness for defendant on rates and ratemaking.

COMPANY/CLIENT

for the District of Arizona.

FUNCTION

Southern Arizona Home Builders
Association

Consultant on ratemaking aspects to line
extension policies (electric).

H2O Water Company

Valuation

Tierra Linda HOA Water Company

Valuation

Las Quintas Serenas Water Company
ACC Docket No. W-01583A-09-0589

Permanent Rate Application – Water.
Prepared schedules and testified on Rate
Base, Plant, Income Statement, Revenue
Requirement, Rate Design, and Cost of
Capital.

Coronado Utilities
ACC Docket No. SW-04305A-09-0291

Permanent Rate Application –
Wastewater. Prepared schedules and
testified on Rate Base, Plant, Income
Statement, Revenue Requirement, Rate
Design, and Cost of Capital.

Little Park Water Company
ACC Docket No. W-02192A-09-0531

Permanent Rate Application. Prepared
schedules on Plant, Income Statement,
Revenue Requirement, and Rate Design.

Sahuarita Water Company
ACC Docket No. W-03718A-09-0359

Permanent Rate Application – Water.
Prepared schedules and testified on Rate
Base, Plant, Income Statement, Revenue
Requirement, Rate Design, Cost of
Service, and Cost of Capital.

Bella Vista Water Company
Southern Sunrise Water Company
Northern Sunrise Water Company
ACC Docket No. W-02465A-09-0414
ACC Docket No. W-02453A-09-0414
ACC Docket No. W-02454A-09-0414

Permanent Rate Application – Water.
Prepared schedules and testified on Rate
Base, Plant, Income Statement, Revenue
Requirement, Rate Design, Cost of
Service, and Cost of Capital.

Rio Rico Utilities, Inc
ACC Docket No. WS-02676A-09-0257

Permanent Rate Application – Water and
Sewer. Prepared schedules and testified
on Rate Base, Plant, Income Statement,
Revenue Requirement, Rate Design, and
Cost of Capital.

COMPANY/CLIENT

Litchfield park Service Company
ACC Docket No. SW-01428A-09-0103
ACC Docket No. W-01428A-09-0104

Town of Thatcher v. City of Safford, CV
2007-240, Superior Court of Arizona

Valencia Water Company
California Public Utility Commission Case
No. 09-05-002

Valley Utilities
ACC Docket No. W-01412A-08-0586

Black Mountain Sewer Company
ACC Docket No. SW-02361A-08-0609

Far West Water and Sewer Company
ACC Docket No. WS-03478A-08-0608

Farmers Water Company
ACC Docket No. W-01654A-08-0502

Far West Water and Sewer Company
ACC Docket No. WS-03478A-08-0454

Ridgeline Water Company, LLC
ACC Docket No. W-20589A-08-0173

FUNCTION

Permanent Rate Application – Water and Sewer. Prepared schedules and testified on Rate Base, Plant, Income Statement, Revenue Requirement, Rate Design, Cost of Service, and Cost of Capital.

Consultant to plaintiff on ratemaking and cost of service.

Cost of Capital

Permanent Rate Application. Prepared schedules and testified on Rate Base, Plant, Income Statement, Revenue Requirement, and Rate Design.

Permanent Rate Application – Sewer. Prepared schedules and testified on Rate Base, Plant, Income Statement, Revenue Requirement, Rate Design, and Cost of Capital.

Interim Rate Application (Emergency Rates)

Permanent Rate Application. Prepared schedules and testified on Rate Base, Plant, Income Statement, Revenue Requirement, and Rate Design.

Permanent Rate Application. Sewer. Prepared schedules and testified on Rate Base, Plant, Income Statement, Revenue Requirement, Rate Design and Cost of Capital.

Certificate of Convenience and Necessity – Water. Prepared pro-forma balance sheets, income statements, plant schedules, rate base, financing, and initial rates.

COMPANY/CLIENT

Sacramento Utilities, Inc.
ACC Docket No. SW-20576A-08-0067

Johnson Utilities
ACC Docket No. WS-02987A-08-0180

Orange Grove Water Company
ACC Docket No. W-02237A-08-0455

Far West Water and Sewer Company
ACC Docket No. WS-03478A-07-0442

Oak Creek Water No.1
ACC Docket No. W-01392A-07-0679

ICR Water Users Association
Docket W-02824-07-0388

Johnson Utilities

H2O, Inc
ACC Docket No. W-02234A-07-0550

Chaparral City Water Company
ACC Docket No. W-02113A-07-0551

FUNCTION

Certificate of Convenience and Necessity
– Wastewater. Prepared pro-forma
balance sheets, income statements, plant
schedules, rate base, and financing.

Permanent Rate Application. Water and
Sewer. Prepared schedules and testified
on Rate Base, Plant, Income Statement,
Revenue Requirement, Rate Design and
Cost of Capital.

Participate in 40-252 proceeding.

Permanent Rate Application. Prepared
schedules on Plant, Income Statement,
Revenue Requirement, and Rate Design.

Financing Application. Prepare schedules
to support application.

Permanent Rate Application. Prepared
schedules and testified on Rate Base,
Plant, Income Statement, Revenue
Requirement, and Rate Design.

Permanent Rate Application. Prepared
schedules and testified on Rate Base,
Plant, Income Statement, Revenue
Requirement, and Rate Design.

Valuation consultant in the matter of the
sale of Johnson Utilities assets to the
Town of Florence.

Permanent Rate Application. Prepared
schedules and testified on Rate Base,
Plant, Income Statement, Revenue
Requirement, Rate Design, and Cost of
Capital.

Permanent Rate Application. Prepared
schedules and testified on Rate Base, Plant,
Income Statement, Revenue Requirement,
Rate Design, and Cost of Capital.

COMPANY/CLIENT

Valley Utilities
ACC Docket No. W-01412A-07-0561

Valley Utilities
ACC Docket No. W-01412A-07-280

Valley Utilities
ACC Docket No. W-01412A-07-0278

Litchfield Park Service Company
ACC Docket No. W-01427A-06-0807

Golden Shores Water Company
ACC Docket No. W-01815A-07-0117

Diablo Village Water Company
ACC Docket No. W-02309A-07-0140

Diablo Village Water Company
ACC Docket No. W-02309A-07-0399

Sahuarita Water Company
(Rancho Sahuarita Water Co.)
ACC Docket No. W-03718A-07-0687

Utility Source, L.L.C.
ACC Docket No. WS-04235A-06-0303

FUNCTION

Financing Application. Prepare schedules to support application.

Emergency Rate Application. Prepare schedules to support application.

Accounting Order. Assist in preparing definition and scope of costs for deferral for future regulatory consideration and treatment.

Accounting Order. Assist in preparing definition and scope of costs for deferral for future regulatory consideration and treatment.

Permanent Rate Application. Water. Prepared schedules and testified on Rate Base, Plant, Income Statement, Revenue Requirement, Rate Design, and Cost of Capital.

Off-site facilities hook-up fee application. Prepare schedules to support application.

Permanent Rate Application (Class C). Water. Prepared schedules and testified on Rate Base, Plant, Income Statement, Revenue Requirement, Rate Design, and Cost of Capital.

Extension Certificate of Convenience and Necessity – Water. Prepared pro-forma balance sheets, income statements, plant schedules, rate base, and financing.

Permanent Rate Application- Water and Wastewater. Prepared schedules and testified on Rate Base, Plant, Income Statement, Revenue Requirement, Rate Design, and Cost of Capital.

<u>COMPANY/CLIENT</u>	<u>FUNCTION</u>
Tierra Buena Water Company	Valuation of Tierra Buena Water Company for estate purposes.
Goodman Water Company ACC Docket No. W-02500A-06-0281	Permanent Rate Application (Class C). Water. Prepared schedules and testified on Rate Base, Plant, Income Statement, and Cost of Capital.
Links at Coyote Wash Utilities ACC Docket No. SW-04210A-06-0220	Certificate of Convenience and Necessity – Sewer. Prepared pro-forma balance sheets, income statements, plant schedules, rate base, financing, and initial rate design.
New River Utilities ACC Docket No. W-0173A-06-0171	Extension Certificate of Convenience and Necessity – Water. Prepared pro-forma balance sheets, income statements, plant schedules, rate base, and financing.
Johnson Utilities ACC Docket No. WS-02987A-04-0501 Docket WS-02987A-04-0177	Extension of Certificate of Convenience and Necessity – Sewer. Prepared pro-forma balance sheets, income statements, plant schedules, rate base, financing, and initial rate design.
Bachmann Springs Utility ACC Docket No. WS-03953A-07-0073	Permanent Rate Application – Water and Sewer. Prepared short-form schedules for Rate Base, Income Statement, Plant, Bill Counts, and Rate Design.
Avra Water Cooperative ACC Docket No. W-02126A-06-0234	Permanent Rate Application – Water. Prepared schedules and testified on Rate Base, Plant, Income Statement, Revenue Requirement, and Rate Design.
Gold Canyon Sewer Company ACC Docket No. SW-025191A-06-0015	Permanent Rate Application – Sewer. Prepared schedules and testified on Rate Base, Plant, Income Statement, Revenue Requirement, Rate Design, and Cost of Capital.
<i>State of Arizona v. Far West Water and Sewer</i> , No. 1 CA-CR 06-0160	Expert witness on behalf of defendant in penalty phase of case.
Far West Water and Sewer Company	Permanent Rate Application – Sewer.

COMPANY/CLIENT

ACC Docket No. WS-03478A-05-0801

Black Mountain Sewer Company
ACC Docket No. SW-02361A-05-0657

Balterra Sewer Company
ACC Docket No. SW-02304A-05-0586

Community Water Company of Green
Valley
ACC Docket No. W-02304A-05-0830

McClain Water Systems
Northern Sunrise Water
Southern Sunrise Water
ACC Docket No. W-020453A-06-0251

Valley Utilities Water Company
ACC Docket No. W-01412A-04-0376

Valley Utilities Water Company
ACC Docket No. W-01412A-04-0376

Beardsley Water Company
ACC Docket No. W-02074A-04-0358

Pine Water Company, Inc.
ACC Docket No. W-03512A-03-0279

FUNCTION

Prepared schedules and testified on Rate Base, Plant, Income Statement, Revenue Requirement, Rate Design, and Cost of Capital.

Permanent Rate Application – Sewer.
Prepared schedules and testified on Rate Base, Plant, Income Statement, Revenue Requirement, Rate Design, and Cost of Capital.

Certificate of Convenience and Necessity – Sewer. Prepared pro-forma balance sheets, income statements, plant schedules, rate base, financing, and initial rate design.

Permanent Rate Application – Water.
Prepared schedules and testified on Rate Base, Plant, Income Statement, Revenue Requirement, and Rate Design.

Certificate of Convenience and Necessity – Water. Prepared pro-forma balance sheets, income statements, plant schedules, rate base, financing, and initial rate design.

Off-site facilities hook-up fee application.
Prepare schedules to support application.

Permanent Rate Application – Water.
Prepared schedules and testified on Rate Base, Plant, Income Statement, and Revenue Requirement. Assisted in preparation of Rate Design.

Permanent Rate Application – Water.
Prepared short-form schedules for Rate Base, Income Statement, Plant, Bill Counts, and Rate Design.

Interim and Permanent Rate Application,
Financing Application - Water. Prepared
schedules and testified on Rate Base,

COMPANY/CLIENT

FUNCTION

Chaparral City Water Company
ACC Docket No. W-02113A-04-0616

Plant, Income Statement, Cost of Capital,
and Rate Design.

Permanent Rate Application. Prepared
schedules and testified on Rate Base,
Plant, and Income Statement. Assisted in
preparation Rate Design.

Tierra Linda Home Owners Association
ACC Docket No. W-0423A-04-0075

Certificate of Convenience and Necessity
– Water. Prepared pro-forma balance
sheets, income statements, plant
schedules, rate base, financing, and initial
rate design.

Diamond Ventures - Red Rock Utilities
ACC Docket No. WS-04245A-04-0184

Certificate of Convenience and Necessity
– Water and Sewer. Prepared pro-forma
balance sheets, income statements, plant
schedules, rate base, financing, and initial
rate design.

Arizona-American Water Company, Inc.
ACC Docket No. WS-01303A-02-0867
ACC Docket No. WS-01303A-02-0868
ACC Docket No. WS-01303A-02-0869
ACC Docket No. WS-01303A-02-0870
ACC Docket No. WS-01303A-02-0908

Permanent Rate Application Water and
Sewer (10 divisions). Prepared schedules
and testimony on Rate Base, Plant,
Income Statement, and Revenue
Requirement. Assisted in preparation of
Rate Design.

Bella Vista Water Company, Inc.
ACC Docket No. W-02465A-01-0776

Permanent Rate Application - Water.
Prepared schedules and testimony on Rate
Base, Plant, Income Statement, and
Revenue Requirement. Assisted in
preparation of Cost of Capital and Rate
Design.

Green Valley Water Company
Docket (2000 Not Filed)

Permanent Rate Application. Prepared
schedules and testimony on Rate Base,
Plant, Income Statement, and Revenue
Requirement. Assisted in preparation of
Cost of Capital and Rate Design.

Gold Canyon Sewer Company
ACC Docket No. SW-02519A-00-0638

Permanent Rate Application - Sewer.
Prepared schedules and testimony on Rate

COMPANY/CLIENT

FUNCTION

Rio Verde Utilities, Inc.
ACC Docket No. WS-02156A-00-0321

Base, Plant, Revenue Requirement, and Income Statement. Assisted in preparation of Cost of Capital and Rate Design.

Permanent Rate Application – Water and Sewer. Prepared schedules and testimony on Rate Base, Plant, Revenue Requirement, and Income Statement. Assisted in preparation of Cost of Capital and Rate Design.

Livco Water Company
Livco Sewer Company
ACC Docket No. SW-02563A-05-0820

Permanent Rate Application – Water. Prepared short-form schedules for Rate Base, Income Statement, Plant, Bill Counts, and Rate Design.

Livco Water Company
ACC Docket No. SW-02563A-07-0506

Permanent Rate Application – Water and Sewer. Prepared short-form schedules for Rate Base, Income Statement, Plant, Bill Counts, and Rate Design.

Cave Creek Sewer Company

Revenue Requirement, Rate Adjustment and Rate Design - Sewer.

Avra Water Cooperative
ACC Docket No. W-02126A-00-0269

Permanent Rate Application – Water. Assisted in preparation of Rate Base, Plant, Income Statement, Revenue Requirement, and Rate Design.

Town of Oro Valley

Revenue Requirements, Water Rate Adjustments and Rate Design.

Far West Water Company
ACC Docket No. WS-03478A-99-0144

Permanent Rate Application – Water. Assisted in preparation of schedules for Rate Base, Income Statement, Revenue Requirement, Lead-Lag Study, Cost of Capital, and Rate Design.

MHC Operating Limited Partnership
Sedona Venture Wastewater
ACC Docket No. W-

Permanent Rate Application – Sewer. Assisted in preparation of schedules for Rate Base, Plant, Income Statement, and Rate Design.

Vail Water Company

Permanent Rate Application. Assisted in

COMPANY/CLIENT

ACC Docket No. W-01651B-99-0406

E&T Water Company

ACC Docket No. W-01409A-95-0440

New River Utility

ACC Docket No. W-01737A-99-0633

Golden Shores Water

ACC Docket No. W-01815A-98-0645

Ponderosa Utility Company

ACC Docket No. W-01717A-99-0572

Chaparral City Water Company

Docket (1999 Not Filed)

FUNCTION

preparation of schedules for Rate Base, Plant, Income Statement, and Rate Design.

Permanent Rate Application - Water.

Assisted in preparation of schedules for Rate Base, Plant, Income Statement, and Rate Design.

Permanent Rate Application - Water.

Assisted in preparation of schedules for Rate Base, Plant, Income Statement, and Rate Design.

Permanent Rate Application – Water.

Assisted in preparation of schedules for Rate Base, Plant, Income Statement, and Rate Design.

Permanent Rate Application – Water.

Assisted in preparation of schedules for Rate Base, Plant, Income Statement, and Rate Design.

Permanent Rate Application - Water.

Prepared schedules and testimony on Rate Base, Plant, Revenue Requirement, and Income Statement. Assisted in preparation of Cost of Capital and Rate Design.

TJB-DT2

Liberty Utilities (Entrada Del Oro Sewer) Corp.
2-Year Phase-in Surcharge Calculation

Exhibit
Page 1 of 1

[1] Total Sewer Rate Revenue Before Increase	\$ 281,288
[2] Sewer Rate Increase per Decision	\$ 254,643
[3] Total Sewer Rate Revenues After Rate Increase	\$ 535,931
[4] Total monthly rate increase [2]/[12]	\$ 21,220
[5] Phase 1 - First 12 months	70%
[6] Phase 2 - Thereafter	100%

[7] Interest Rate (FVOR per Decision)

6.92%

Month	Amt Collected	Cumulative Collected	Cumulative Uncollected w/o Interest	Cumulative Uncollected with Interest	Monthly Interest	Cumulative Interest
1	\$ 14,854.17	\$ 14,854	\$ 6,366	\$ 6,366	\$ 37	\$ 37
2	\$ 14,854.17	\$ 29,708	\$ 12,732	\$ 12,769	\$ 74	\$ 110
3	\$ 14,854.17	\$ 44,563	\$ 19,098	\$ 19,209	\$ 111	\$ 221
4	\$ 14,854.17	\$ 59,417	\$ 25,464	\$ 25,685	\$ 148	\$ 369
5	\$ 14,854.17	\$ 74,271	\$ 31,830	\$ 32,200	\$ 186	\$ 555
6	\$ 14,854.17	\$ 89,125	\$ 38,186	\$ 38,751	\$ 223	\$ 778
7	\$ 14,854.17	\$ 103,979	\$ 44,563	\$ 45,341	\$ 261	\$ 1,040
8	\$ 14,854.17	\$ 118,833	\$ 50,929	\$ 51,968	\$ 300	\$ 1,339
9	\$ 14,854.17	\$ 133,688	\$ 57,295	\$ 58,634	\$ 338	\$ 1,677
10	\$ 14,854.17	\$ 148,542	\$ 63,661	\$ 65,338	\$ 377	\$ 2,054
11	\$ 14,854.17	\$ 163,396	\$ 70,027	\$ 72,081	\$ 416	\$ 2,469
12	\$ 14,854.17	\$ 178,250	\$ 76,393	\$ 78,862	\$ 455	\$ 2,924
13	\$ 21,220.25	\$ 199,470	\$ 76,393	\$ 79,317	\$ 457	\$ 3,381
14	\$ 21,220.25	\$ 220,691	\$ 76,393	\$ 79,774	\$ 460	\$ 3,841
15	\$ 21,220.25	\$ 241,911	\$ 76,393	\$ 80,234	\$ 463	\$ 4,304
16	\$ 21,220.25	\$ 263,131	\$ 76,393	\$ 80,697	\$ 465	\$ 4,769
17	\$ 21,220.25	\$ 284,351	\$ 76,393	\$ 81,162	\$ 468	\$ 5,237
18	\$ 21,220.25	\$ 305,572	\$ 76,393	\$ 81,630	\$ 471	\$ 5,708
19	\$ 21,220.25	\$ 326,792	\$ 76,393	\$ 82,100	\$ 473	\$ 6,181
20	\$ 21,220.25	\$ 348,012	\$ 76,393	\$ 82,574	\$ 476	\$ 6,657
21	\$ 21,220.25	\$ 369,232	\$ 76,393	\$ 83,050	\$ 479	\$ 7,136
22	\$ 21,220.25	\$ 390,453	\$ 76,393	\$ 83,529	\$ 482	\$ 7,617
23	\$ 21,220.25	\$ 411,673	\$ 76,393	\$ 84,010	\$ 484	\$ 8,102
24	\$ 21,220.25	\$ 432,893	\$ 76,393	\$ 84,495	\$ 487	\$ 8,589

Balances at end of phase-in period

[8] \$ 432,893 [9] \$ 76,393 [10] \$ 84,495

[11] Total uncollected with interest at end Phase-in Period = [10]

\$ 84,495

[12] Monthly amount to be collected over next 12 months = $PMT([10]/12, 12, -[11])$

\$ 7,308

[13] Total amount to be collected including interest [12] x 12

\$ 87,694

[14] Total interest charges during recovery period [13] - [11]

\$ 3,200

Computation of Surcharge Rate

[15] Monthly surcharge revenues = [12]

[16] Monthly Surcharge per Customer = [15]/336

\$ 7,308

\$ 21.75

Sample Bills

	Current	Year 1	Year 2	Year 3	Year 4
[17] Monthly Charge	Residential	Residential	Residential	Residential	Residential
[18] Increase in Rate	\$ 70.00	\$ 70.00	\$ 114.61	\$ 133.74	\$ 133.74
[19] Surcharge		44.61	19.12		
[20] Total Monthly Charge	\$ 70.00	\$ 114.61	\$ 133.74	\$ 155.48	\$ 133.74
[21] % Increase		63.74%	16.68%	16.26%	0.00%

RATE BASE SCHEDULES

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Computation of Increase in Gross Revenue
Requirements As Adjusted

Exhibit
Schedule A-1
Page 1
Witness: Bourassa

Line
No.

1	Fair Value Rate Base	\$	2,154,980
2			
3	Adjusted Operating Income		(25,409)
4			
5	Current Rate of Return		-1.18%
6			
7	Required Operating Income	\$	149,085
8			
9	Required Rate of Return on Fair Value Rate Base		6.92%
10			
11	Operating Income Deficiency	\$	174,495
12			
13	Gross Revenue Conversion Factor		1.4593
14			
15	Increase in Gross Revenue		
16	Requirement	\$	254,643
17			
18	Adjusted Test Year Revenues	\$	281,288
19	Increase in Gross Revenue Revenue Requirement	\$	254,643
20	Proposed Revenue Requirement	\$	535,931
21	% Increase		90.53%
22			

	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
23 Customer				
24 <u>Classification</u>				
25 Residential	\$ 281,190	\$ 537,213	\$ 256,023	91.05%
26				0.00%
27 Revenue Annualization	(1,470)	(2,808)	(1,338)	91.05%
28 Subtotal	<u>\$ 279,720</u>	<u>\$ 534,405</u>	<u>\$ 254,685</u>	<u>91.05%</u>
29				
30 Miscellaneous Revenues	1,575	1,575	-	0.00%
31 Reconciling Amount	(7)	(49)	(42)	600.00%
32 Rounding				0.00%
33 Total of Water Revenues	<u>\$ 281,288</u>	<u>\$ 535,931</u>	<u>\$ 254,643</u>	<u>90.53%</u>

SUPPORTING SCHEDULES:

B-1
C-1
C-3
D-1
H-1

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Summary of Results of Operations

Exhibit
Schedule A-2
Page 1
Witness: Bourassa

Line No.	Description	Prior Years Ended		Test Year		Projected Year	
		12/31/2013	10/31/2014	Actual 10/31/2015	Adjusted 10/31/2015	Present Rates 12/31/2016	Proposed Rates 12/31/2016
1	Gross Revenues	\$ 285,094	\$ 282,537	\$ 282,758	\$ 281,288	\$ 281,288	\$ 535,931
2							
3	Revenue Deductions and	375,787	309,974	321,354	306,697	306,697	386,846
4	Operating Expenses						
5							
6	Operating Income	\$ (90,692)	\$ (27,437)	\$ (38,596)	\$ (25,409)	\$ (25,409)	\$ 149,085
7							
8	Other Income and	42	(72)	(94)	(22,606)	(22,606)	(22,606)
9	Deductions						
10							
11	Interest Expense	(64)	(72)	(94)	(22,606)	(22,606)	(22,606)
12							
13	Net Income	\$ (90,714)	\$ (27,581)	\$ (38,785)	\$ (70,621)	\$ (70,621)	\$ 103,874
14							
15	Common Shares	1,000	1,000	1,000	1,000	1,000	1,000
16							
17	Earned Per Average						
18	Common Share	(90.71)	(27.58)	(38.78)	(70.62)	(70.62)	103.87
19							
20	Dividends Paid	-	-	334,733	-	-	-
21							
22	Dividends Per						
23	Common Share	-	-	334.73	-	-	-
24							
25	Payout Ratio	-	-	(8.63)	-	-	-
26							
27	Return on Average						
28	Invested Capital	-2.70%	-0.88%	-1.33%	-2.50%	-2.55%	3.75%
29							
30	Return on Year End						
31	Capital	-2.74%	-0.94%	-1.34%	-2.50%	-2.60%	3.82%
32							
33	Return on Average						
34	Common Equity	-2.73%	-0.85%	-1.27%	-2.19%	-2.48%	3.53%
35							
36	Return on Year End						
37	Common Equity	-2.77%	-0.85%	-1.35%	-2.21%	-2.50%	3.46%
38							
39	Times Bond Interest Earned						
40	Before Income Taxes	(1,425.98)	(381)	(408.90)	(1.67)	(1.67)	9.37
41							
42	Times Total Interest and						
43	Preferred Dividends Earned						
44	After Income Taxes	(1,424.33)	(381)	(408.90)	(1.12)	(1.12)	6.60
45							
46							
47							
48							
49							
50	<u>SUPPORTING SCHEDULES</u>						
51	C-1						
52	E-2						
53	F-1						
54							

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Summary of Capital Structure

Exhibit
Schedule A-3
Page 1
Witness: Bourassa

Line No.		Prior Years Ended		Test Year	Projected Year
	Description:	12/31/2013	10/31/2014	10/31/2015	12/31/2016
1					
2					
3	Short-Term Debt	-	-	-	-
3					
4	Long-Term Debt	-	-	-	848,454
5					
6	Total Debt	\$ -	\$ -	\$ -	\$ 848,454
7					
8					
9	Preferred Stock	-	-	-	-
10					
11	Common Equity	3,277,127	3,249,618	2,876,195	1,979,726
12					
13					
14	Total Capital & Debt	\$ 3,277,127	\$ 3,249,618	\$ 2,876,195	\$ 2,828,180
15					
16					
17	Capitalization Ratios:				
18					
19	Long-Term Debt	0.00%	0.00%	0.00%	30.00%
20					
21	Total Debt	0.00%	0.00%	0.00%	30.00%
22					
23					
24	Preferred Stock	-	-	-	-
25					
26	Common Equity	100.00%	100.00%	100.00%	70.00%
27					
28					
29	Total Capital	100.00%	100.00%	100.00%	100.00%
30					
31					
32	Weighted Cost of				
33	Senior Capital	0.00%	0.00%	0.00%	1.05%
34					
35					
36					
37					
38					
39					
40					
41					
42					
43					
44					
45	<u>SUPPORTING SCHEDULES:</u>				
46	E-1				
47	D-1				
48					
49					
50					

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Construction Expenditures
and Gross Utility Plant in Service

Exhibit
Schedule A-4
Page 1
Witness: Bourassa

Line No.		Construction Expenditures	Net Plant Placed in Service	Gross Utility Plant in Service
1				
2				
3				
4	Prior Year Ended 12/31/2012	6,543	6,543	4,159,114
5				
6	Prior Year Ended 12/31/2013	45,622	23,731	4,182,845
7				
8	Test Year Ended 12/31/2014	98,674	100,159	4,283,004
9				
10	Projected Year Ended 12/31/2015	31,396	31,396	4,314,400
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34	<u>SUPPORTING SCHEDULES:</u>			
35	B-2			
36	E-5			
37	F-3			
38				
39				
40				

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Summary Statements of Cash Flows

Exhibit
Schedule A-5
Page 1
Witness: Bourassa

Line
No.

	Prior Year Ended <u>12/31/2013</u>	Prior Year Ended <u>10/31/2014</u>	Test Year Ended <u>10/31/2015</u>	Projected Year Present Rates <u>12/31/2016</u>	Projected Rates <u>12/31/2016</u>
5 Cash Flows from Operating Activities					
6 Net Income	\$ (90,651)	\$ (27,509)	\$ (38,690)	\$ (48,015)	\$ 126,479
7 Adjustments to reconcile net income to net cash provided by operating activities:					
9 Depreciation and Amortization	175,969	166,103	168,567	135,073	135,073
10 Other -Adjustments	(11,876)	(5,628)	11,057		
11 Changes in Certain Assets and Liabilities:					
12 Accounts Receivable	5,888	(1,370)	(19,631)		
13 Unbilled Revenues	-	-	-		
14 Materials and Supplies Inventory	-	-	-		
15 Prepaid Expenses	16,337	1,615	2,031		
16 Deferred Charges	-	-	-		
17 Receivables/Payables to Associated Co.	1,328	(329,952)	297,521		
18 Accounts Payable	-	-	-		
19 Intercompany payable	-	-	-		
20 Customer Meter Deposits	270	700	550		
21 Taxes Payable	2,131	(13,908)	16,158		
22 Other assets and liabilities	(11,573)	8,955	18,383		
Rounding	(1)	-	(1)		
23 Net Cash Flow provided by Operating Activities	\$ 87,823	\$ (200,994)	\$ 455,945	\$ 87,058	\$ 261,553
24 Cash Flow From Investing Activities:					
25 Capital Expenditures	(6,543)	(45,622)	(98,674)	(31,396)	(31,396)
26 Plant Held for Future Use	-	-	-		
27 Changes in debt reserve fund	-	-	-		
28 Net Cash Flows from Investing Activities	\$ (6,543)	\$ (45,622)	\$ (98,674)	\$ (31,396)	\$ (31,396)
29 Cash Flow From Financing Activities					
30 Change in Restricted Cash	-	-	-	-	-
31 Proceeds from Long-Term Debt	-	-	-	-	-
32 Net receipt of contributions in aid of construction	-	-	-	-	-
33 Net receipts of advances in aid of construction	-	-	-	-	-
34 Repayments of Long-Term Debt	-	-	-	-	-
35 Distributions/Dividends Paid	-	-	(334,733)	(111,578)	(111,578)
36 Deferred Financing Costs	-	-	-	-	-
37 Paid in Capital	5,001	-	-	1,667	1,667
38 Net Cash Flows Provided by Financing Activities	\$ 5,001	\$ -	\$ (334,733)	\$ (109,911)	\$ (109,911)
39 Increase(decrease) in Cash and Cash Equivalents	86,281	(246,616)	22,538	(54,248)	120,247
40 Cash and Cash Equivalents at Beginning of Year	168,109	254,390	7,773	30,311	30,311
41 Cash and Cash Equivalents at End of Year	\$ 254,390	\$ 7,774	\$ 30,311	\$ (23,937)	\$ 150,558

46 SUPPORTING SCHEDULES:

47 E-3

48 F-2

49

50

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Summary of Rate Base

Exhibit
Schedule B-1
Page 1
Witness: Bourassa

Line No.		Original Cost Rate base	Reconstruction Cost New Less Depreciation Rate base	Fair Value Rate Base
1				
2	Gross Utility Plant in Service	\$ 4,010,610	\$ 6,522,612	\$ 5,266,611
3	Less: Accumulated Depreciation	1,369,249	1,920,523	1,644,886
4				
5	Net Utility Plant in Service	\$ 2,641,361	\$ 4,602,089	\$ 3,621,725
6				
7	<u>Less:</u>			
8	Advances in Aid of Construction	-	-	-
9				
10	Contributions in Aid of Construction	1,013,352	1,522,616	1,267,984
11				
12	Accumulated Amortization of CIAC	(85,869)	(155,486)	(120,678)
13				
14	Customer Meter Deposits	-	-	-
15	Customer Security Deposits	2,360	2,360	2,360
16	Accumulated Deferred Income Tax	214,584	405,292	309,938
17				
18				
19	<u>Plus:</u>			
20	Unamortized Finance			
21	Charges	-	-	-
22	Prepayments	16,048	16,048	16,048
23	Materials and Supplies	-	-	-
24	Cash Working Capital	(23,189)	(23,189)	(23,189)
25				
26				
27	Total Rate Base	\$ 1,489,794	\$ 2,820,167	\$ 2,154,980

SUPPORTING SCHEDULES:

B-2
B-3
B-5

RECAP SCHEDULES:

A-1

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Original Cost Rate Base Proforma Adjustments

Exhibit
Schedule B-2
Page 1
Witness: Bourassa

Line No.		Actual at End of Test Year	Proforma Adjustment	Adjusted at end of Test Year
1	Gross Utility			
2	Plant in Service	\$ 4,283,004	(272,394)	\$ 4,010,610
3				
4	Less:			
5	Accumulated			
6	Depreciation	1,515,859	(146,610)	1,369,249
7				
8				
9	Net Utility Plant			
10	in Service	\$ 2,767,145		\$ 2,641,361
11				
12	Less:			
13	Advances in Aid of			
14	Construction	-	-	-
15				
16	Contributions in Aid of			
17	Construction - Gross	-	1,013,352	1,013,352
18				
19	Accumulated Amortization of CIAC	-	(85,869)	(85,869)
20				
21	Customer Meter Deposits	-		-
22	Customer Security Deposits	2,360	-	2,360
23	Accumulated Deferred Income Tax	-	214,584	214,584
24				
25				-
26				-
27	Plus:			
28	Unamortized Finance			
29	Charges	-	-	-
30	Prepayments	16,048	-	16,048
31	Materials and Supplies	-	-	-
32	Cash Working capital	-	(23,189)	(23,189)
33				-
34				
35	Total	\$ 2,780,833		\$ 1,489,794
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				

46 SUPPORTING SCHEDULES:
47 B-2, pages 2
48 E-1
49
50
51

RECAP SCHEDULES:
B-1

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Original Cost Rate Base Proforma Adjustments

Exhibit
Schedule B-2
Page 2
Witness: Bourassa

Line No.		Actual at End of Test Year	1	2	Proforma Adjustments			4	5	Adjusted at end of Test Year
					Plant-in-Service	Accumulated Depreciation	CIAC	ADIT		
1	Gross Utility Plant in Service	\$ 4,283,004	(272,394)							\$ 4,010,610
2										
3										
4	Less:									
5	Accumulated Depreciation	1,515,859		(146,610)						1,369,249
6										
7										
8										
9	Net Utility Plant in Service	\$ 2,767,145	\$ (272,394)	\$ 146,610	\$					\$ 2,641,361
10										
11										
12	Less:									
13	Advances in Aid of Construction	-								-
14										
15										
16	Contributions in Aid of Construction (CIAC)	-					1,013,352			1,013,352
17										
18										
19	Accumulated Amort of CIAC	-					(85,869)			(85,869)
20										
21	Customer Deposits	-								-
22	Customer Security Deposits	2,360								2,360
23	Accumulated Deferred Income Taxes	-						214,584		214,584
24										
25										
26	Plus:									
27	Unamortized Finance Charges	-								-
28										
29	Prepayments	16,048								16,048
30	Materials and Supplies	-								-
31	Cash Working Capital	-							(23,189)	(23,189)
32										
33	Total	\$ 2,780,833	\$ (272,394)	\$ 146,610	\$	\$ (927,483)	\$ (214,584)	\$	\$ (23,189)	\$ 1,489,794
34										
35										
36										

SUPPORTING SCHEDULES:
B-2, pages 3-5
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RECAP SCHEDULE
B-2, page 1

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Original Cost Rate Base Proforma Adjustments
Adjustment Number 1

Exhibit
Schedule B-2
Page 3
Witness: Bourassa

Plant-in-Service

Line No.	Acct. No.	Description	Adjustments				Adjusted Original Cost
			A	B	C	D	
			Actual Original Cost	Allocated Corporate Plant	Plant Held for Future Use	Adjustments to Reconcile Plant to Reconstruction	
1	351	Organization	37,898	-	-	-	37,898
2	352	Franchise	754	-	-	-	799
3	353	Land	400,000	-	-	45	400,000
4	354	Structures & Improvements	576,788	(187)	(26,200)	-	550,401
5	355	Power Generation	124,916	-	-	-	124,916
6	360	Collection Sewer Forced	7,141	-	-	-	7,141
7	361	Collection Sewers Gravity	480,817	(107)	-	-	480,710
8	362	Special Collecting Structures	-	-	-	-	-
9	363	Customer Services	122,760	-	-	-	122,760
10	364	Flow Measuring Devices	3,845	-	-	-	3,845
11	365	Flow Measuring Installations	2,457	-	-	-	2,457
12	366	Reuse Services	-	-	-	-	-
13	367	Reuse Meters And Installation	-	-	-	-	-
14	370	Receiving Wells	-	-	-	-	-
15	371	Pumping Equipment	26,226	-	-	-	26,226
16	374	Reuse Distribution Reservoirs	168,465	(77)	(15,200)	-	153,187
17	375	Reuse Trans. and Dist. System	-	-	-	-	-
18	380	Treatment & Disposal Equipment	126,541	-	(257,600)	-	126,541
19	381	Plant Sewers	2,145,684	(188)	-	-	1,887,896
20	382	Outfall Sewer Lines	27,752	-	-	-	27,752
21	389	Other Sewer Plant & Equipment	5,541	-	-	-	5,541
22	390	Office Furniture & Equipment	13,935	-	-	(12,188)	1,747
23	390.1	Computers and Software	-	-	-	12,188	12,188
24	391	Transportation Equipment	-	-	-	-	-
25	392	Stores Equipment	-	-	-	-	-
26	393	Tools, Shop And Garage Equip	5,463	(115)	-	-	5,348
27	394	Laboratory Equip	6,021	(74)	-	-	5,947
28	395	Power Operated Equip	-	-	-	-	-
29	396	Communication Equip	-	-	-	-	-
30	397	Miscellaneous Equip.	-	-	-	-	-
31	398	Other Tangible Plant	-	-	-	-	-
32		SUBTOTAL	4,283,004	(748)	(299,000)	45	3,983,301
33			-	-	-	-	-
34	903	Land and Land Rights	-	1,129	-	-	1,129
35	904	Structures and Improvements	-	12,332	-	-	12,332
36	940	Office Furniture & Equipment	-	1,334	-	-	1,334
37	940.1	Computers and Software	-	12,514	-	-	12,514
38			-	-	-	-	-
39			-	-	-	-	-
40		Plant Held for Future Use	-	-	-	-	-
41		TOTALS	\$ 4,283,004	\$ (748)	\$ (299,000)	\$ 45	\$ 4,010,610
42			-	27,309	-	-	-
43		Plant-in-Service per Books	-	-	-	-	-
44			-	-	-	-	-
45		Increase (decrease) in Plant-in-Service	-	-	-	-	-
46			-	-	-	-	-
47		Adjustment to Plant-in-Service	-	-	-	-	-
48			-	-	-	-	-
49		SUPPORTING SCHEDULES	-	-	-	-	-
50		B-2, pages 3.1 to 3.4	-	-	-	-	-
51			-	-	-	-	-

RECAP SCHEDULES:
B-2, page 2

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Original Cost Rate Base Proforma Adjustments
Adjustment Number 1 - A

Exhibit
Schedule B-2
Page 3.1
Witness: Bourassa

Line No.		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
1	<u>Remove Affiliate Profit</u>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2												
3												
4	Acct.											
5	No. Description											
6	351 Organization											
7	352 Franchise											
8	353 Land											
9	354 Structures & Improvements											
10	355 Power Generation											
11	360 Collection Sewer Forced						(59)	(127)				(187)
12	361 Collection Sewers Gravity											
13	362 Special Collecting Structures					(107)						(107)
14	363 Customer Services											
15	364 Flow Measuring Devices											
16	365 Flow Measuring Installations											
17	366 Reuse Services											
18	367 Reuse Meters And Installation											
19	370 Receiving Wells											
20	371 Pumping Equipment											
21	374 Reuse Distribution Reservoirs						(12)	(65)				(77)
22	375 Reuse Trans. and Dist. System											
23	380 Treatment & Disposal Equipment						(133)	(56)				(188)
24	381 Plant Sewers											
25	382 Outfall Sewer Lines											
26	389 Other Sewer Plant & Equipment											
27	390 Office Furniture & Equipment											
28	390 Computers and Software											
29	391 Transportation Equipment											
30	392 Stores Equipment											
31	393 Tools, Shop And Garage Equip						(115)					(115)
32	394 Laboratory Equip						(68)	(6)				(74)
33	395 Power Operated Equip											
34	396 Communication Equip											
35	397 Miscellaneous Equip.											
36	398 Other Tangible Plant											
37												
38												
39												
40	Plant Held for Future Use											
41	TOTALS	\$ -	\$ -	\$ -	\$ -	\$ (107)	\$ (387)	\$ (254)	\$ -	\$ -	\$ -	\$ (748)
42												
43												
44	<u>SUPPORTING SCHEDULE</u>											
45	Testimony											
46	Work papers											

RECAP SCHEDULES:
B-2, page 3

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Original Cost Rate Base Proforma Adjustments
Adjustment Number 1 - B

Exhibit
Schedule B-2
Page 3.2
Witness: Bourassa

Line No.					
1	<u>Corporate Plant</u>				
2		[1]	[2]	[3]	[4] = [1]x[2]x[3]
3			Liberty		Allocated
4	Acct.	Original	Utilities	EDO	Original
5	No. Description	Cost	Factor	Factor	Cost
6	903 Land and Land Rights	1,396,196	15.64%	0.52%	1,129
7	904 Structures and Improvments	12,560,664	15.64%	0.52%	10,157
8	940.1 Computers and Software	2,187,630	15.64%	0.52%	1,769
9					
10					
11	<u>LU Sub-Corp. Plant</u>				
12					
13	903 Land and Land Rights	-		0.52%	-
14	904 Structures and Improvments	420,651		0.52%	2,175
15	940 Office Furniture and Equipmen	258,089		0.52%	1,334
16	940.1 Computers and Software	2,078,183		0.52%	10,745
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
41	TOTALS	\$ 18,901,413		\$ 27,309	
42					
43	<u>SUPPORTING SCHEDULE</u>		<u>RECAP SCHEDULES:</u>		
44	Testimony		B-2, page 3		
45	Work papers				

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Original Cost Rate Base Proforma Adjustments
Adjustment Number 1 - C

Exhibit
Schedule B-2
Page 3.3
Witness: Bourassa

Line

No.

1 Plant Held for Future Use

2

3

4 Acct.

Original

5 No. Description

Cost

6 351 Organization

7 352 Franchise

8 353 Land

9 354 Structures & Improvements

(26,200)

10 355 Power Generation

11 360 Collection Sewer Forced

12 361 Collection Sewers Gravity

13 362 Special Collecting Structures

14 363 Customer Services

15 364 Flow Measuring Devices

16 365 Flow Measuring Installations

17 366 Reuse Services

18 367 Reuse Meters And Installation

19 370 Receiving Wells

20 371 Pumping Equipment

(15,200)

21 374 Reuse Distribution Reservoirs

22 375 Reuse Trans. and Dist. System

23 380 Treatment & Disposal Equipment

(257,600)

24 381 Plant Sewers

25 382 Outfall Sewer Lines

26 389 Other Sewer Plant & Equipment

27 390 Office Furniture & Equipment

28 390.1 Computers and Software

29 391 Transportation Equipment

30 392 Stores Equipment

31 393 Tools, Shop And Garage Equip

32 394 Laboratory Equip

33 395 Power Operated Equip

34 396 Communication Equip

35 397 Miscellaneous Equip.

36 398 Other Tangible Plant

37

38

39

40

41 TOTALS

\$ (299,000)

42

43 SUPPORTING SCHEDULE

RECAP SCHEDULES:

44 Testimony

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45 Work papers

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Original Cost Rate Base Proforma Adjustments
Adjustment Number 1 - D

Exhibit
Schedule B-2
Page 3.4
Witness: Bourassa

Line No.	Acct.	Original Cost	B-2 Adjustments	Adjusted Original Cost	Plant Per Reconstruction	Difference
1	<u>Reconciliation of Booked Plant to Plant Reconstruction</u>					
2						
3						
4	Acct.	Original Cost	B-2 Adjustments	Adjusted Original Cost	Plant Per Reconstruction	Difference
5	No. Description					
6	351 Organization	\$ 37,898	\$ -	\$ 37,898	\$ 37,898	\$ -
7	352 Franchise	754	-	754	799	45
8	353 Land	400,000	-	400,000	400,000	-
9	354 Structures & Improvements	576,788	(26,387)	550,401	550,401	-
10	355 Power Generation	124,916	-	124,916	124,916	-
11	360 Collection Sewer Forced	7,141	-	7,141	7,141	-
12	361 Collection Sewers Gravity	480,817	(107)	480,710	480,710	-
13	362 Special Collecting Structures	-	-	-	-	-
14	363 Customer Services	122,760	-	122,760	122,760	-
15	364 Flow Measuring Devices	3,845	-	3,845	3,845	-
16	365 Flow Measuring Installations	2,457	-	2,457	2,457	-
17	366 Reuse Services	-	-	-	-	-
18	367 Reuse Meters And Installation	-	-	-	-	-
19	370 Receiving Wells	26,226	-	26,226	26,226	-
20	371 Pumping Equipment	168,465	(15,277)	153,187	153,187	-
21	374 Reuse Distribution Reservoirs	-	-	-	-	-
22	375 Reuse Trans. and Dist. System	126,541	-	126,541	126,541	-
23	380 Treatment & Disposal Equipment	2,145,684	(257,788)	1,887,896	1,887,896	-
24	381 Plant Sewers	27,752	-	27,752	27,752	-
25	382 Outfall Sewer Lines	5,541	-	5,541	5,541	-
26	389 Other Sewer Plant & Equipment	-	-	-	-	-
27	390 Office Furniture & Equipment	13,935	-	13,935	1,747	(12,188)
28	390.1 Computers and Software	-	-	-	12,188	12,188
29	391 Transportation Equipment	-	-	-	-	-
30	392 Stores Equipment	-	-	-	-	-
31	393 Tools, Shop And Garage Equip	5,463	(115)	5,348	5,348	-
32	394 Laboratory Equip	6,021	(74)	5,947	5,947	-
33	395 Power Operated Equipment	-	-	-	-	-
34	396 Communication Equip	-	-	-	-	-
35	397 Miscellaenous Equip.	-	-	-	-	-
36	398 Other Tangible Plant	-	-	-	-	-
37						
38						
39						
40						
41						
42	Plant Held for Future Use					-
43	TOTALS	\$ 4,283,004	\$ (299,748)	\$ 3,983,256	\$ 3,983,301	\$ 45

46 SUPPORTING SCHEDULE
47 B-2, pages 3.1 through 3.4
48 B-2, pages 3.5 through 3.14

RECAP SCHEDULES:
B-2, page 3

Liberty Utilities (Entrada del Oro Sewer) Corp.
Plant Additions and Retirements

Exhibit
Schedule B-2
Page 3.5
Witness: Bourassa

Line No.	NARUC Account No.	Description	Allowed Deprec. Rate	2005		2006		Depreciation (Calculated)	Plant Balance	Accum. Deprec.
				Plant at 12/31/2005	Accum. Deprec. At 12/31/2005	Plant Additions (Per Books)	Adjusted Plant Additions	Plant Retirements (Per Books)	Adjusted Plant Retirements	Salvage A/D Only
1	351	Organization	0.00%	-	-	36,564	36,564	-	-	-
2	352	Franchise	0.00%	-	-	808	808	-	-	-
3	353	Land	0.00%	-	-	400,000	400,000	-	-	-
4	354	Structures & Improvements	3.33%	-	-	526,499	526,499	-	-	-
5	355	Power Generation	5.00%	-	-	71,070	71,070	-	-	-
6	360	Collection Sewer Forced	2.00%	-	-	7,141	7,141	-	-	-
7	361	Collection Sewers Gravity	2.00%	-	-	483,631	483,631	-	-	-
8	362	Special Collecting Structures	2.00%	-	-	-	-	-	-	-
9	363	Customer Services	2.00%	-	-	122,760	122,760	-	-	-
10	364	Flow Measuring Devices	10.00%	-	-	3,845	3,845	-	-	-
11	365	Flow Measuring Installations	10.00%	-	-	2,457	2,457	-	-	-
12	366	Reuse Services	2.00%	-	-	-	-	-	-	-
13	367	Reuse Meters And Installation	6.33%	-	-	-	-	-	-	-
14	370	Receiving Wells	3.33%	-	-	26,226	26,226	-	-	-
15	371	Pumping Equipment	12.50%	-	-	152,743	152,743	-	-	-
16	374	Reuse Distribution Reservoirs	2.50%	-	-	-	-	-	-	-
17	375	Reuse Trans. and Dist. System	2.50%	-	-	126,541	126,541	-	-	-
18	380	Treatment & Disposal Equipment	5.00%	-	-	2,103,724	2,103,724	-	-	-
19	381	Plant Sewers	5.00%	-	-	27,752	27,752	-	-	-
20	382	Outfall Sewer Lines	3.33%	-	-	5,541	5,541	-	-	-
21	388	Other Sewer Plant & Equipment	6.67%	-	-	1,458	1,458	-	-	-
22	390	Office Furniture & Equipment	20.00%	-	-	-	-	-	-	-
23	390.1	Computers and Software	20.00%	-	-	-	-	-	-	-
24	391	Transportation Equipment	4.00%	-	-	-	-	-	-	-
25	392	Stores Equipment	5.00%	-	-	-	-	-	-	-
26	393	Tools, Shop And Garage Equip	10.00%	-	-	-	-	-	-	-
27	394	Laboratory Equip	5.00%	-	-	-	-	-	-	-
28	395	Power Operated Equipment	10.00%	-	-	-	-	-	-	-
29	396	Communication Equip	10.00%	-	-	-	-	-	-	-
30	397	Miscellaneous Equip	10.00%	-	-	-	-	-	-	-
31	398	Other Tangible Plant	10.00%	-	-	-	-	-	-	-
32				-	-	-	-	-	-	-
33				-	-	-	-	-	-	-
34				-	-	-	-	-	-	-
35				-	-	-	-	-	-	-
36				-	-	-	-	-	-	-
37		Plant Held for Future Use		-	-	-	-	-	-	-
38		TOTALS		-	-	4,098,760	4,098,760	-	-	81,986
39				-	-	-	-	-	-	81,986

Exhibit
Schedule B-2
Page 3.6
Witness: Bourassa

NARUC Account			Allowed Deprec. Rate	2007						Accum. Deprec.		
Line No.	No.	Description		Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements		Salvage A/D Only	Depreciation (Calculated)
1	351	Organization	0.00%	-	-	-	-	-	-	-	36,564	-
2	352	Franchise	0.00%	-	-	-	-	-	-	-	808	-
3	353	Land	0.00%	-	-	-	-	-	-	-	400,000	-
4	354	Structures & Improvements	3.33%	-	-	-	-	-	-	17,552	526,499	26,299
5	355	Power Generation	5.00%	-	-	-	-	-	-	3,554	71,070	5,330
6	360	Collection Sewer Forced	2.00%	-	-	-	-	-	-	143	7,141	214
7	361	Collection Sewers Gravity	2.00%	-	-	-	-	-	-	9,673	483,631	14,509
8	362	Special Collecting Structures	2.00%	-	-	-	-	-	-	-	-	-
9	363	Customer Services	2.00%	-	-	-	-	-	-	-	122,760	3,683
10	364	Flow Measuring Devices	10.00%	-	-	-	-	-	-	-	3,845	577
11	365	Flow Measuring Installations	10.00%	-	-	-	-	-	-	-	2,457	369
12	366	Reuse Services	2.00%	-	-	-	-	-	-	-	-	-
13	367	Reuse Meters And Installation	8.33%	-	-	-	-	-	-	-	-	-
14	370	Receiving Wells	3.33%	-	-	-	-	-	-	-	-	-
15	371	Pumping Equipment	12.50%	-	-	-	-	-	-	873	26,226	1,310
16	374	Reuse Distribution Reservoirs	2.50%	-	-	-	-	-	-	19,093	152,743	28,639
17	375	Reuse Trans. and Dist. System	2.50%	-	-	-	-	-	-	-	-	-
18	380	Treatment & Disposal Equipment	5.00%	-	-	-	-	-	-	3,164	126,541	4,745
19	381	Plant Sewers	5.00%	-	-	-	-	-	-	105,186	2,103,724	157,779
20	382	Outfall Sewer Lines	3.33%	-	-	-	-	-	-	1,368	27,752	2,081
21	389	Other Sewer Plant & Equipment	6.67%	-	-	-	-	-	-	185	5,541	277
22	390	Office Furniture & Equipment	6.67%	-	-	-	-	-	-	97	1,458	146
23	390.1	Computers and Software	20.00%	-	-	-	-	-	-	-	-	-
24	391	Transportation Equipment	20.00%	-	-	-	-	-	-	-	-	-
25	392	Stores Equipment	4.00%	-	-	-	-	-	-	-	-	-
26	393	Tools, Shop And Garage Equip	5.00%	-	-	-	-	-	-	-	-	-
27	394	Laboratory Equip	10.00%	-	-	-	-	-	-	-	-	-
28	395	Power Operated Equipment	5.00%	-	-	-	-	-	-	-	-	-
29	396	Communication Equip	10.00%	-	-	-	-	-	-	-	-	-
30	397	Miscellaneous Equip	10.00%	-	-	-	-	-	-	-	-	-
31	398	Other Tangible Plant	10.00%	-	-	-	-	-	-	-	-	-
32												
33												
34												
35												
36												
37		Plant Held for Future Use										
38		TOTALS		-	-	-	-	-	-	163,972	4,098,760	245,958

Liberty Utilities (Entrada del Oro Sewer) Corp.
Plant Additions and Retirements

Exhibit
Schedule B-2
Page 3.7
Witness: Bourassa

Line No.	NARUC Account No.	Description	Allowed Deprec. Rate	2008					Salvage A/D Only	Depreciation (Calculated)	Plant Balance	Accum. Deprec.
				Plant Additions (Per Books)	Adjusted Plant Additions	Retirement Adjustments	Adjusted Plant Retirements	Plant Retirements (Per Books)				
1	351	Organization	0.00%	-	-	-	-	-	-	-	36,564	-
2	352	Franchise	0.00%	-	-	-	-	-	-	-	808	-
3	353	Land	0.00%	-	-	-	-	-	-	-	400,000	-
4	354	Structures & Improvements	3.33%	-	-	-	-	-	-	17,532	526,489	43,931
5	355	Power Generation	5.00%	-	-	-	-	-	-	3,554	71,070	8,884
6	360	Collection Sewer Forced	2.00%	-	-	-	-	-	-	143	7,141	357
7	361	Collection Sewers Gravity	2.00%	-	-	-	-	-	-	9,673	483,631	24,182
8	362	Special Collecting Structures	2.00%	-	-	-	-	-	-	-	-	-
9	363	Customer Services	2.00%	-	-	-	-	-	-	-	-	-
10	364	Flow Measuring Devices	10.00%	-	-	-	-	-	-	2,455	122,760	6,138
11	365	Flow Measuring Installations	10.00%	-	-	-	-	-	-	385	3,845	961
12	366	Reuse Services	2.00%	-	-	-	-	-	-	246	2,457	614
13	367	Reuse Meters And Installation	8.33%	-	-	-	-	-	-	-	-	-
14	370	Receiving Wells	3.33%	-	-	-	-	-	-	-	-	-
15	371	Pumping Equipment	12.50%	-	-	-	-	-	-	873	26,226	2,183
16	374	Reuse Distribution Reservoirs	2.50%	-	-	-	-	-	-	19,093	152,743	47,732
17	375	Reuse Trans. and Dist. System	2.50%	-	-	-	-	-	-	-	-	-
18	380	Treatment & Disposal Equipment	5.00%	-	-	-	-	-	-	3,164	126,541	7,909
19	381	Plant Sewers	5.00%	-	-	-	-	-	-	105,186	2,103,724	262,965
20	382	Outfall Sewer Lines	3.33%	-	-	-	-	-	-	1,388	27,752	3,469
21	389	Other Sewer Plant & Equipment	6.67%	-	-	-	-	-	-	185	5,541	461
22	390	Office Furniture & Equipment	20.00%	-	-	-	-	-	-	-	-	-
23	390.1	Computers and Software	20.00%	-	-	-	-	-	-	-	-	-
24	391	Transportation Equipment	20.00%	-	-	-	-	-	-	97	1,458	243
25	392	Stores Equipment	4.00%	-	-	-	-	-	-	-	-	-
26	393	Tools, Shop And Garage Equip	5.00%	-	-	-	-	-	-	-	-	-
27	394	Laboratory Equip	10.00%	-	-	-	-	-	-	-	-	-
28	395	Power Operated Equipment	5.00%	-	-	-	-	-	-	-	-	-
29	396	Communication Equip	10.00%	-	-	-	-	-	-	-	-	-
30	397	Miscellaneous Equip	10.00%	-	-	-	-	-	-	-	-	-
31	398	Other Tangible Plant	10.00%	-	-	-	-	-	-	-	-	-
32				-	-	-	-	-	-	-	-	-
33				-	-	-	-	-	-	-	-	-
34				-	-	-	-	-	-	-	-	-
35				-	-	-	-	-	-	-	-	-
36				-	-	-	-	-	-	-	-	-
37		Plant Held for Future Use		-	-	-	-	-	-	-	-	-
38		TOTALS		-	-	-	-	-	-	163,972	4,098,760	409,930

Liberty Utilities (Entrada del Oro Sewer) Corp.
Plant Additions and Retirements

Exhibit
Schedule B-2
Page 3.8
Witness: Bourassa

NARUC Account		Description	Allowed Deprec. Rate	2009									
Line No.	No.			Plant Additions (Per Books)	Plant Adjustments	Affiliate Profit Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Depreciation (Calculated)	Plant Balance
1	351	Organization	0.00%	-	-	-	-	-	-	-	-	36,564	-
2	352	Franchise	0.00%	-	-	-	-	-	-	-	-	808	-
3	353	Land	0.00%	-	-	-	-	-	-	-	-	400,000	-
4	354	Structures & Improvements	3.33%	-	-	-	-	-	-	-	17,532	526,489	61,363
5	355	Power Generation	5.00%	-	454	-	454	-	-	-	3,565	71,524	12,449
6	360	Collection Sewer Forced	2.00%	-	-	-	-	-	-	-	143	7,141	500
7	361	Collection Sewers Gravity	2.00%	-	-	-	-	-	-	-	9,673	483,631	33,854
8	362	Special Collecting Structures	2.00%	-	-	-	-	-	-	-	-	-	-
9	363	Customer Services	2.00%	-	-	-	-	-	-	-	-	-	-
10	364	Flow Measuring Devices	10.00%	-	-	-	-	-	-	-	2,455	122,760	8,593
11	365	Flow Measuring Installations	10.00%	-	-	-	-	-	-	-	385	3,845	1,346
12	366	Reuse Services	2.00%	-	-	-	-	-	-	-	246	2,457	860
13	367	Reuse Meters And Installation	8.33%	-	-	-	-	-	-	-	-	-	-
14	370	Receiving Wells	3.33%	-	-	-	-	-	-	-	-	-	-
15	371	Pumping Equipment	12.50%	-	-	-	-	-	-	-	873	26,226	3,057
16	374	Reuse Distribution Reservoirs	2.50%	-	-	-	-	-	-	-	19,093	152,743	66,825
17	375	Reuse Trans. and Dist. System	2.50%	-	-	-	-	-	-	-	-	-	-
18	380	Treatment & Disposal Equipment	5.00%	462	-	-	462	-	-	-	3,164	126,541	11,072
19	381	Plant Sewers	5.00%	-	-	-	-	-	-	-	105,198	2,104,185	368,163
20	382	Outfall Sewer Lines	3.33%	-	-	-	-	-	-	-	1,388	27,752	4,857
21	388	Other Sewer Plant & Equipment	6.67%	-	-	-	-	-	-	-	185	5,541	646
22	390	Office Furniture & Equipment	6.67%	-	-	-	-	-	-	-	97	1,458	340
23	390.1	Computers and Software	20.00%	-	-	-	-	-	-	-	-	-	-
24	391	Transportation Equipment	20.00%	-	-	-	-	-	-	-	-	-	-
25	392	Stores Equipment	4.00%	-	-	-	-	-	-	-	-	-	-
26	393	Tools, Shop And Garage Equip	5.00%	-	-	-	-	-	-	-	-	-	-
27	394	Laboratory Equip	10.00%	-	-	-	-	-	-	-	-	-	-
28	395	Power Operated Equipment	5.00%	-	-	-	-	-	-	-	-	-	-
29	396	Communication Equip	10.00%	-	-	-	-	-	-	-	-	-	-
30	397	Miscellaneous Equip	10.00%	-	-	-	-	-	-	-	-	-	-
31	398	Other Tangible Plant	10.00%	-	-	-	-	-	-	-	-	-	-
32				-	-	-	-	-	-	-	-	-	-
33				-	-	-	-	-	-	-	-	-	-
34				-	-	-	-	-	-	-	-	-	-
35				-	-	-	-	-	-	-	-	-	-
36				-	-	-	-	-	-	-	-	-	-
37		Plant Held for Future Use		-	-	-	-	-	-	-	-	-	-
38		TOTALS		462	454	-	916	-	-	-	163,995	4,099,675	573,925

Liberty Utilities (Entrada del Oro Sewer) Corp.
Plant Additions and Retirements

Exhibit
Schedule B-2
Page 3.9
Witness: Bourassa

Line No.	NARUC Account No.	Description	Allowed Deprec. Rate	2010						Salvage A/D Only	Depreciation (Calculated)	Plant Balance	Accum. Deprec.
				Plant Additions (Per Books)	Plant Adjustments	Affiliate Profit Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements			
1	351	Organization	0.00%	1,333	-	-	1,333	-	-	-	-	37,898	-
2	352	Franchise	0.00%	-	-	-	-	-	-	-	-	808	-
3	353	Land	0.00%	-	-	-	-	-	-	-	-	400,000	-
4	354	Structures & Improvements	3.33%	-	-	-	-	-	-	-	-	526,499	78,896
5	355	Power Generation	5.00%	-	(454)	-	-	-	-	-	17,532	71,070	15,991
6	360	Collection Sewer Forced	2.00%	-	-	-	-	-	-	-	3,542	7,141	643
7	361	Collection Sewers Gravity	2.00%	-	-	-	-	-	-	-	143	-	-
8	362	Special Collecting Structures	2.00%	-	-	(107)	-	-	-	-	9,672	483,524	43,526
9	363	Customer Services	2.00%	-	-	-	-	-	-	-	-	-	-
10	364	Flow Measuring Devices	2.00%	-	-	-	-	-	-	-	2,455	122,760	11,048
11	365	Flow Measuring Installations	10.00%	-	-	-	-	-	-	-	385	3,845	1,730
12	366	Reuse Services	2.00%	-	-	-	-	-	-	-	246	2,457	1,105
13	367	Reuse Meters And Installation	8.33%	-	-	-	-	-	-	-	-	-	-
14	370	Receiving Wells	3.33%	-	-	-	-	-	-	-	-	-	-
15	371	Pumping Equipment	12.50%	-	-	-	-	-	-	-	873	26,226	3,930
16	374	Reuse Distribution Reservoirs	2.50%	-	-	-	-	-	-	-	19,093	152,743	85,918
17	375	Reuse Trans. and Dist. System	2.50%	-	-	-	-	-	-	-	-	-	-
18	380	Treatment & Disposal Equipment	5.00%	3,261	-	-	3,261	-	-	-	3,164	126,541	14,236
19	381	Plant Sewers	5.00%	-	-	-	-	-	-	-	105,291	2,107,446	473,454
20	382	Outfall Sewer Lines	3.33%	-	-	-	-	-	-	-	1,388	27,752	6,244
21	389	Other Sewer Plant & Equipment	6.67%	-	-	-	-	-	-	-	185	5,541	830
22	390	Office Furniture & Equipment	6.67%	-	-	-	-	-	-	-	97	1,458	438
23	390.1	Computers and Software	20.00%	-	-	-	-	-	-	-	-	-	-
24	391	Transportation Equipment	20.00%	-	-	-	-	-	-	-	-	-	-
25	392	Stores Equipment	4.00%	-	-	-	-	-	-	-	-	-	-
26	393	Tools, Shop And Garage Equip	5.00%	-	-	-	-	-	-	-	-	-	-
27	394	Laboratory Equip	10.00%	-	-	-	-	-	-	-	-	-	-
28	395	Power Operated Equipment	5.00%	-	-	-	-	-	-	-	-	-	-
29	396	Communication Equip	10.00%	-	-	-	-	-	-	-	-	-	-
30	397	Miscellaneous Equip	10.00%	-	-	-	-	-	-	-	-	-	-
31	398	Other Tangible Plant	10.00%	-	-	-	-	-	-	-	-	-	-
32				-	-	-	-	-	-	-	-	-	-
33				-	-	-	-	-	-	-	-	-	-
34				-	-	-	-	-	-	-	-	-	-
35				-	-	-	-	-	-	-	-	-	-
36				-	-	-	-	-	-	-	-	-	-
37		Plant Held for Future Use		-	-	-	-	-	-	-	-	-	-
38		TOTALS		4,594	(454)	(107)	4,033	-	-	-	164,064	4,103,708	737,989

Liberty Utilities (Entrada del Oro Sewer) Corp.
Plant Additions and Retirements

Exhibit
Schedule B-2
Page 3.10
Witness: Bourassa

Line No.	NARUC Account No.	Description	Allowed Deprec. Rate	2011						Accum. Deprec.
				Plant Additions (Per Books)	Plant Adjustments	Affiliate Profit Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Adjusted Plant Retirements	
1	351	Organization	0.00%	-	-	-	-	-	-	-
2	352	Franchise	0.00%	-	-	-	-	-	-	-
3	353	Land	0.00%	-	-	-	-	-	-	-
4	354	Structures & Improvements	3.33%	4,189	-	(59)	4,130	-	-	-
5	355	Power Generation	5.00%	-	-	-	-	-	-	96,497
6	360	Collection Sewer Forced	2.00%	-	-	-	-	-	-	19,544
7	361	Collection Sewers Gravity	2.00%	-	-	-	-	-	-	786
8	362	Special Collecting Structures	2.00%	-	-	-	-	-	-	53,196
9	363	Customer Services	2.00%	-	-	-	-	-	-	-
10	364	Flow Measuring Devices	10.00%	-	-	-	-	-	-	13,504
11	365	Flow Measuring Installations	10.00%	-	-	-	-	-	-	2,115
12	366	Reuse Services	2.00%	-	-	-	-	-	-	1,351
13	367	Reuse Meters And Installation	8.33%	-	-	-	-	-	-	-
14	370	Receiving Wells	3.33%	-	-	-	-	-	-	-
15	371	Pumping Equipment	12.50%	858	-	(12)	846	-	-	4,803
16	374	Reuse Distribution Reservoirs	2.50%	-	-	-	-	-	-	105,064
17	375	Reuse Trans. and Dist. System	2.50%	-	-	-	-	-	-	-
18	380	Treatment & Disposal Equipment	5.00%	6,894	-	(133)	6,761	-	-	17,399
19	381	Plant Sewers	5.00%	-	-	-	-	-	-	578,995
20	382	Outfall Sewer Lines	3.33%	-	-	-	-	-	-	7,632
21	388	Other Sewer Plant & Equipment	6.67%	-	-	-	-	-	-	1,015
22	390	Office Furniture & Equipment	6.67%	-	-	-	-	-	-	-
23	390.1	Computers and Software	20.00%	-	-	-	-	-	-	-
24	391	Transportation Equipment	20.00%	-	-	-	-	-	-	-
25	392	Stores Equipment	4.00%	-	-	-	-	-	-	-
26	393	Tools, Shop And Garage Equip	5.00%	5,463	-	(115)	5,348	-	-	-
27	394	Laboratory Equip	10.00%	4,798	-	(68)	4,730	-	-	134
28	395	Power Operated Equipment	5.00%	-	-	-	-	-	-	236
29	396	Communication Equip	10.00%	-	-	-	-	-	-	-
30	397	Miscellaneous Equip	10.00%	-	-	-	-	-	-	-
31	398	Other Tangible Plant	10.00%	-	-	-	-	-	-	-
32				-	-	-	-	-	-	-
33				-	-	-	-	-	-	-
34				-	-	-	-	-	-	-
35				-	-	-	-	-	-	-
36		Plant Held for Future Use		-	-	-	-	-	-	-
37				-	-	-	-	-	-	-
38		TOTALS		22,202	-	(367)	21,835	-	-	902,806
								164,817	4,125,524	

Liberty Utilities (Entrada del Oro Sewer) Corp.
Plant Additions and Retirements

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Schedule B-2
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Witness: Bourassa

NARUC Account			Allowed Deprec. Rate	2012										
Line No.	No.	Description		Plant Additions (Per Books)	Plant Adjustments	Affiliate Profit Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Depreciation (Calculated)	Plant Balance	Accum. Deprec.
1	351	Organization												
2	352	Franchise												
3	353	Land												
4	354	Structures & Improvements												
5	355	Power Generation												
6	360	Collection Sewer Forced												
7	361	Collection Sewers Gravity												
8	362	Special Collecting Structures												
9	363	Customer Services												
10	364	Flow Measuring Devices												
11	365	Flow Measuring Installations												
12	366	Reuse Services												
13	367	Reuse Meters And Installation												
14	370	Receiving Wells												
15	371	Pumping Equipment												
16	374	Reuse Distribution Reservoirs												
17	375	Reuse Trans. and Dist. System												
18	380	Treatment & Disposal Equipment												
19	381	Plant Sewers												
20	382	Outfall Sewer Lines												
21	389	Other Sewer Plant & Equipment												
22	390	Office Furniture & Equipment												
23	390.1	Computers and Software												
24	391	Transportation Equipment												
25	392	Stores Equipment												
26	393	Tools, Shop And Garage Equip												
27	394	Laboratory Equip												
28	395	Power Operated Equipment												
29	396	Communication Equip												
30	397	Miscellaneous Equip												
31	398	Other Tangible Plant												
32														
33														
34														
35														
36														
37		Plant Held for Future Use												
38		TOTALS												

Line No.	NARUC Account No.	Description	Allowed Deprec. Rate	2013							Accum. Deprec.
				Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	
1	351	Organization	0.00%	-	-	-	-	-	-	-	-
2	352	Franchise	0.00%	-	-	-	-	-	-	-	-
3	353	Land	0.00%	-	-	-	-	-	-	-	-
4	354	Structures & Improvements	3.33%	6,038	-	6,038	131	-	131	-	132,572
5	355	Power Generation	5.00%	-	-	-	-	-	-	-	26,651
6	360	Collection Sewer Forcad	2.00%	-	-	-	-	-	-	-	1,071
7	361	Collection Sewers Gravity	2.00%	-	-	-	-	-	-	-	72,537
8	362	Special Collecting Structures	2.00%	-	-	-	-	-	-	-	-
9	363	Customer Services	2.00%	-	-	-	-	-	-	-	-
10	364	Flow Measuring Devices	10.00%	-	-	-	-	-	-	-	18,414
11	365	Flow Measuring Installations	10.00%	-	-	-	-	-	-	-	3,845
12	366	Reuse Services	2.00%	-	-	-	-	-	-	-	2,457
13	367	Reuse Meters And Installation	8.33%	-	-	-	-	-	-	-	-
14	370	Receiving Wells	3.33%	-	-	-	-	-	-	-	-
15	371	Pumping Equipment	12.50%	-	-	-	-	-	-	-	6,550
16	374	Reuse Distribution Reservoirs	2.50%	-	-	-	-	-	-	-	144,479
17	375	Reuse Trans. and Dist. System	2.50%	-	-	-	-	-	-	-	-
18	380	Treatment & Disposal Equipment	5.00%	9,986	-	9,986	-	-	-	-	23,726
19	381	Plant Sewers	5.00%	-	-	-	-	-	-	-	791,132
20	382	Outfall Sewer Lines	3.33%	-	-	-	-	-	-	-	10,407
21	389	Other Sewer Plant & Equipment	6.67%	-	-	-	-	-	-	-	1,384
22	390.1	Office Furniture & Equipment	20.00%	12,188	-	12,188	-	-	-	-	729
23	391	Computers and Software	20.00%	-	-	-	-	-	-	-	1,219
24	391	Transportation Equipment	4.00%	-	-	-	-	-	-	-	-
25	392	Tools, Shop And Garage Equip	5.00%	-	-	-	-	-	-	-	-
26	393	Laboratory Equip	10.00%	-	-	-	-	-	-	-	669
27	394	Power Operated Equipment	5.00%	-	-	-	-	-	-	-	1,365
28	396	Communication Equip	10.00%	-	-	-	-	-	-	-	-
29	397	Miscellaneous Equip	10.00%	-	-	-	-	-	-	-	-
30	398	Other Tangible Plant	10.00%	-	-	-	-	-	-	-	-
31				-	-	-	-	-	-	-	-
32				-	-	-	-	-	-	-	-
33				-	-	-	-	-	-	-	-
34				-	-	-	-	-	-	-	-
35				-	-	-	-	-	-	-	-
36				-	-	-	-	-	-	-	-
37		Plant Held for Future Use		-	-	-	-	-	-	-	-
38		TOTALS		28,212	-	28,212	131	-	131	-	1,237,632

Liberty Utilities (Entrada del Oro Sewer) Corp.
Plant Additions and Retirements

Exhibit
Schedule B-2
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Witness: Bourassa

Line No.	NARUC Account No.	Description	Allowed Deprec. Rate	2014					Depreciation (Calculated)	Plant Balance	Accum. Deprec.
				Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Adjusted Plant Retirements	Salvage A/D Only		
1	351	Organization	0.00%	-	-	-	-	-	-	37,898	-
2	352	Franchise	0.00%	-	-	-	-	-	-	799	-
3	353	Land	0.00%	-	-	-	9	-	-	400,000	-
4	354	Structures & Improvements	3.33%	-	17,304	19,578	587	-	-	570,892	150,680
5	355	Power Generation	5.00%	-	107,277	107,277	-	-	-	178,347	32,887
6	360	Collection Sewer Forced	2.00%	-	-	-	-	-	-	7,141	1,214
7	361	Collection Sewers Gravity	2.00%	-	-	-	-	-	-	480,710	79,366
8	362	Special Collecting Structures	2.00%	-	-	-	2,814	-	-	-	-
9	363	Customer Services	2.00%	-	-	-	-	-	-	-	-
10	364	Flow Measuring Devices	10.00%	-	-	-	-	-	-	122,760	20,869
11	365	Flow Measuring Installations	10.00%	-	-	-	-	-	-	3,845	3,288
12	366	Reuse Services	2.00%	-	-	-	-	-	-	2,457	2,088
13	367	Reuse Meters And Installation	8.33%	-	-	-	-	-	-	-	-
14	370	Receiving Wells	3.33%	-	-	-	-	-	-	-	-
15	371	Pumping Equipment	12.50%	-	-	-	-	-	-	28,226	7,423
16	374	Reuse Distribution Reservoirs	2.50%	5,455	854	6,309	1,217	-	-	10,725	153,988
17	375	Reuse Trans. and Dist. System	2.50%	-	-	-	-	-	-	-	-
18	380	Treatment & Disposal Equipment	5.00%	9,384	390	9,775	1,401	-	-	3,164	26,890
19	381	Plant Sewers	5.00%	-	-	-	-	1,401	-	2,138,783	896,461
20	382	Outfall Sewer Lines	3.33%	-	-	-	-	-	-	27,752	11,795
21	388	Other Sewer Plant & Equipment	6.67%	-	-	-	-	-	-	185	1,568
22	390	Office Furniture & Equipment	20.00%	289	-	289	-	-	-	107	836
23	390.1	Computers and Software	20.00%	-	-	-	-	-	-	2,438	3,656
24	391	Transportation Equipment	20.00%	-	-	-	-	-	-	-	-
25	392	Stores Equipment	4.00%	-	-	-	-	-	-	-	-
26	393	Tools, Shop And Garage Equip	5.00%	-	-	-	-	-	-	267	936
27	394	Laboratory Equip	10.00%	-	-	-	-	-	-	595	1,960
28	395	Power Operated Equipment	5.00%	-	-	-	-	-	-	-	-
29	396	Communication Equip	10.00%	-	-	-	-	-	-	-	-
30	397	Miscellaneous Equip	10.00%	-	-	-	-	-	-	-	-
31	398	Other Tangible Plant	10.00%	-	-	-	-	-	-	-	-
32				-	-	-	-	-	-	-	-
33				-	-	-	-	-	-	-	-
34				-	-	-	-	-	-	-	-
35				-	-	-	-	-	-	-	-
36				-	-	-	-	-	-	-	-
37		Plant Held for Future Use		-	-	-	-	-	-	-	-
38		TOTALS		17,403	125,826	143,229	6,027	-	184,271	4,319,035	1,395,885

Exhibit
Schedule B-2
Page 3.14
Witness: Bourassa

NARUC Account No.		Description	Allowed Deprec. Rate	2015										
Line No.				Plant Additions (Per Books)	Plant Adjustments	Adjusted Plant Additions	Plant Retirements (Per Books)	Retirement Adjustments	Adjusted Plant Retirements	Salvage A/D Only	Excess Capacity P/S Adj	Excess Capacity A/D Adj.	10 Months Depreciation (Calculated)	Plant Balance
1	351	Organization	0.00%										37,898	-
2	352	Franchise	0.00%										799	-
3	353	Land	0.00%										400,000	-
4	354	Structures & Improvements	3.33%	17,258	5,756 (17,304)	5,710 (53,431)				(26,200)	(8,288)	15,921	550,401	158,313
5	355	Power Generation	5.00%	53,846	(107,277)							1,848	124,916	34,735
6	360	Collection Sewer Forced	2.00%									119	7,141	1,333
7	361	Collection Sewers Gravity	2.00%									8,012	480,710	87,377
8	362	Special Collecting Structures	2.00%											
9	363	Customer Services	2.00%											
10	364	Flow Measuring Devices	10.00%									2,046	122,760	22,915
11	365	Flow Measuring Installations	10.00%									320	3,845	3,589
12	366	Reuse Services	2.00%									205	2,457	2,293
13	367	Reuse Meters And Installation	8.33%											
14	370	Receiving Wells	3.33%											
15	371	Pumping Equipment	12.50%	854	16,185 (854)	16,185	11,911		(15,200)			728	26,226	8,151
16	374	Reuse Distribution Reservoirs	2.50%									2,154	153,187	129,032
17	375	Reuse Trans. and Dist. System	2.50%											
18	380	Treatment & Disposal Equipment	5.00%	390	9,593 (390)	9,593	2,880		(257,600)			89,256	1,887,896	860,477
19	381	Plant Sewers	5.00%									1,156	27,752	12,951
20	382	Outfall Sewer Lines	3.33%									2,635	126,541	29,526
21	389	Other Sewer Plant & Equipment	6.67%											
22	390	Office Furniture & Equipment	6.67%											
23	390.1	Computers and Software	20.00%											
24	391	Transportation Equipment	20.00%											
25	392	Stores Equipment	4.00%									154	5,541	1,722
26	393	Tools, Shop And Garage Equip	5.00%											
27	394	Laboratory Equip	10.00%									97	1,747	933
28	395	Power Operated Equipment	5.00%									2,031	12,188	5,688
29	396	Communication Equip	10.00%											
30	397	Miscellaneous Equip	10.00%											
31	398	Other Tangible Plant	10.00%											
32														
33														
34														
35														
36														
37		Plant Held for Future Use												
38		TOTALS		72,348	31,534 (125,826)	(21,944)	14,790	-	(299,000)	(145,848)		127,402	3,983,301	1,962,650

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Original Cost Rate Base Proforma Adjustments
Adjustment Number 2

Exhibit
Schedule B-2
Page 4
Witness: Bourassa

Accumulated Depreciation

Line No.	Acct. No.	Description	Per Books Accum. Depr.	A Affiliate Profit	B Allocated Corporate Plant	C Capacity Adjustment	D Adjustments to Reconcile A/D to Reconstruction	Adjusted Accum. Depr.
1	351	Organization	12,145	-	-	-	(12,145)	-
2	352	Franchise	-	-	-	-	-	-
3	353	Land	-	-	-	-	-	-
4	354	Structures & Improvements	167,874	(24)	(8,288)	(1,249)	-	158,313
5	355	Power Generation	23,802	-	-	10,932	-	34,735
6	356	Collection Sewer Forced	1,345	-	-	(12)	-	1,333
7	357	Collection Sewers Gravity	89,757	(12)	-	(2,368)	-	87,377
8	358	Special Collecting Structures	-	-	-	-	-	-
9	359	Customer Services	20,665	-	-	2,251	-	22,915
10	360	Flow Measuring Devices	3,621	-	-	(32)	-	3,589
11	361	Flow Measuring Installations	1,157	-	-	1,136	-	2,293
12	362	Reuse Services	2,455	-	-	(2,455)	-	-
13	363	Reuse Meters And Installation	-	-	-	-	-	-
14	364	Receiving Wells	8,232	(6)	-	(75)	-	8,151
15	365	Pumping Equipment	145,483	(6)	(15,200)	(1,246)	-	129,032
16	366	Reuse Distribution Reservoirs	-	-	-	-	-	-
17	367	Reuse Trans. and Dist. System	23,832	(11)	-	5,706	-	29,526
18	368	Treatment & Disposal Equipment	994,222	(28)	(122,360)	(11,356)	-	860,477
19	369	Plant Sewers	13,067	-	-	(116)	-	12,951
20	370	Outfall Sewer Lines	2,087	-	-	(365)	-	1,722
21	371	Other Sewer Plant & Equipment	-	-	-	-	-	-
22	372	Office Furniture & Equipment	2,570	-	-	(1,637)	-	933
23	373	Computers and Software	-	-	-	5,688	-	5,688
24	374	Stores Equipment	-	-	-	-	-	-
25	375	Tools, Shop And Garage Equip	1,183	(9)	-	9	-	-
26	376	Laboratory Equip	2,363	(45)	-	21	-	1,159
27	377	Power Operated Equipment	-	(11)	-	104	-	2,455
28	378	Communication Equip	-	-	-	-	-	-
29	379	Miscellaneous Equip.	-	-	-	-	-	-
30	380	Other Tangible Plant	-	-	-	-	-	-
31	381	Accumulated Depreciation	-	-	-	-	-	-
32	382	SUBTOTAL	1,515,859	(152)	-	(145,848)	(0)	1,369,249
33	383	Land and Land Rights	-	-	-	(7,209)	-	-
34	384	Structures and Improvements	-	-	-	-	-	-
35	385	Office Furniture & Equipment	1,002	-	-	-	-	1,002
36	386	Computers and Software	200	-	-	-	-	200
37	387	Plant Held for Future Use	5,398	-	-	-	-	5,398
38	388	TOTALS	-	-	-	-	-	-
39	389	Accumulated Depreciation per Books	6,599	\$	\$	(145,848)	\$	\$ 1,515,859
40	390	Increase (decrease) in Accumulated Depreciation	(152)	\$	\$	(7,209)	\$	\$ (146,610)
41	391	Adjustment to Accumulated Depreciation	-	-	-	-	-	\$ (146,610)

RECAP SCHEDULES:
B-2, page 2

SUPPORTING SCHEDULES
B-2, pages 4.1 through 4.4

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Original Cost Rate Base Proforma Adjustments
Adjustment Number 2 - A

Exhibit
Schedule B-2
Page 4.1
Witness: Bourassa

Line

No.

Remove A/D Related to Affiliate Profit

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Acct.	Depr															
No.	Description	Rate	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total			
351	Organization	0.00%	-	-	-	-	-	-	-	-	-	-	\$	-	-	-
352	Franchise	0.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
353	Land	0.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
354	Structures & Improvements	3.33%	-	-	-	-	-	(1)	(4)	(6)	(6)	(6)	(24)	-	-	-
355	Power Generation	5.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
360	Collection Sewer Forced	2.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
361	Collection Sewers Gravity	2.00%	-	-	-	-	(1)	(2)	(2)	(2)	(2)	(2)	(12)	-	-	-
362	Special Collecting Structures	2.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
363	Customer Services	2.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
364	Flow Measuring Devices	10.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
366	Reuse Services	2.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
367	Reuse Meters And Installation	8.33%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
370	Receiving Wells	3.33%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
371	Pumping Equipment	12.50%	-	-	-	-	-	(1)	(6)	-	-	-	(6)	-	-	-
374	Reuse Distribution Reservoirs	2.50%	-	-	-	-	-	-	-	(2)	(2)	(2)	(6)	-	-	-
375	Reuse Trans. and Dist. System	2.50%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
380	Treatment & Disposal Equipment	5.00%	-	-	-	-	-	(3)	(8)	-	-	-	(11)	-	-	-
381	Plant Sewers	5.00%	-	-	-	-	-	-	-	(9)	(9)	(9)	(28)	-	-	-
382	Outfall Sewer Lines	3.33%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
389	Other Sewer Plant & Equipment	6.67%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
390	Office Furniture & Equipment	6.67%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
390.1	Computers and Software	20.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
391	Transportation Equipment	20.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
392	Stores Equipment	4.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
393	Tools, Shop And Garage Equip	5.00%	-	-	-	-	-	(3)	(6)	-	-	-	(9)	-	-	-
394	Laboratory Equip	10.00%	-	-	-	-	-	(3)	(7)	(11)	(11)	(11)	(45)	-	-	-
395	Power Operated Equip	5.00%	-	-	-	-	-	-	-	(4)	(4)	(4)	(11)	-	-	-
396	Communication Equip	10.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
398	Other Tangible Plant	10.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Plant Held for Future Use																
TOTALS			\$ -	\$ -	\$ -	\$ (1)	\$ (13)	\$ (33)	\$ (35)	\$ (35)	\$ (35)	\$ (35)	\$ (152)			

SUPPORTING SCHEDULE

B-2, pages 3.2

Work papers

RECAP SCHEDULES:

B-2, page 4

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Original Cost Rate Base Proforma Adjustments
Adjustment Number 2 - B

Exhibit
Schedule B-2
Page 4.2
Witness: Bourassa

Line No.					
1	<u>Corporate Plant A/D</u>				
2			[1]	[2]	[3]
3				Liberty	
4	Acct.		Original Cost	Utilities	EDO
5	<u>No.</u>	<u>Description</u>	<u>A/D</u>	<u>Factor</u>	<u>Factor</u>
6	903	Land and Land Rights	\$ -	15.64%	0.52%
7	904	Structures and Improvments	644,137	15.64%	0.52%
8	940.1	Computers and Software	656,289	15.64%	0.52%
9					
10					
11	<u>LU Sub-Corp. Plant</u>				
12					
13	903	Land and Land Rights	-		0.52%
14	904	Structures and Improvments	92,971		0.52%
15	940	Office Furniture and Equipmer	38,753		0.52%
16	940.1	Computers and Software	941,298		0.52%
17					
18					
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38					
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40					
41	TOTALS		\$ 2,373,448		\$ 6,599
42					
43					

44 SUPPORTING SCHEDULE
45 Work papers
46

RECAP SCHEDULES:
B-2, page 4

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Original Cost Rate Base Proforma Adjustments
Adjustment Number 2 - C

Exhibit
Schedule B-2
Page 4.3
Witness: Bourassa

Line No.		[1]	[2]	[3]	[4] = MAX([1] x [2] x [3]) A/D
	Acct. No. Description	Original Cost	Depr. Rate	Years	Original Cost
1	<u>A/D Plant Held for Future Use Adjustment</u>				
2					
3					
4	Acct.	Original	Depr.		A/D
5	No. Description	Cost	Rate	Years	Original Cost
6	351 Organization	-			-
7	352 Franchise	-			-
8	353 Land	-			-
9	354 Structures & Improvements	(26,200)	3.33%	9.5	(8,288)
10	355 Power Generation	-			-
11	360 Collection Sewer Forced	-			-
12	361 Collection Sewers Gravity	-			-
13	362 Special Collecting Structures	-			-
14	363 Customer Services	-			-
15	364 Flow Measuring Devices	-			-
16	365 Flow Measuring Installations	-			-
17	366 Reuse Services	-			-
18	367 Reuse Meters And Installation	-			-
19	370 Receiving Wells	-			-
20	371 Pumping Equipment	(15,200)	12.50%	9.5	(15,200)
21	374 Reuse Distribution Reservoirs	-			-
22	375 Reuse Trans. and Dist. System	-			-
23	380 Treatment & Disposal Equipment	(257,600)	5.00%	9.5	(122,360)
24	381 Plant Sewers	-			-
25	382 Outfall Sewer Lines	-			-
26	389 Other Sewer Plant & Equipment	-			-
27	390 Office Furniture & Equipment	-			-
28	390.1 Computers and Software	-			-
29	391 Transportation Equipment	-			-
30	392 Stores Equipment	-			-
31	393 Tools, Shop And Garage Equip	-			-
32	394 Laboratory Equip	-			-
33	395 Power Operated Equip	-			-
34	396 Communication Equip	-			-
35	397 Miscellaneous Equip.	-			-
36	398 Other Tangible Plant	-			-
37					
38					
39					
40					
41	TOTALS	\$ (299,000)			\$ (145,848)

44 SUPPORTING SCHEDULE
45 Work papers

RECAP SCHEDULES:
B-2, page 4

46
47
48

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Original Cost Rate Base Proforma Adjustments
Adjustment Number 2 - D

Exhibit
Schedule B-2
Page 4.4
Witness: Bourassa

Line No.	Acct.	No.	Description	A/D	B-2 Adjustments	Adjusted A/D	A/D Per Reconstruction	Difference
1			Reconciliation of A/D to A/D Reconstruction					
2								
3								
4								
5								
6		351	Organization	\$ 12,145	\$ -	\$ 12,145	\$ -	\$ (12,145)
7		352	Franchise	-	-	-	-	-
8		353	Land	-	-	-	-	-
9		354	Structures & Improvements	167,874	(8,312)	159,562	158,313	(1,249)
10		355	Power Generation	23,802	-	23,802	34,735	10,932
11		360	Collection Sewer Forced	1,345	-	1,345	1,333	(12)
12		361	Collection Sewers Gravity	89,757	(12)	89,745	87,377	(2,368)
13		362	Special Collecting Structures	-	-	-	-	-
14		363	Customer Services	20,665	-	20,665	22,915	2,251
15		364	Flow Measuring Devices	3,621	-	3,621	3,589	(32)
16		365	Flow Measuring Installations	1,157	-	1,157	2,293	1,136
17		366	Reuse Services	2,455	-	2,455	-	(2,455)
18		367	Reuse Meters And Installation	-	-	-	-	-
19		370	Receiving Wells	8,232	(6)	8,226	8,151	(75)
20		371	Pumping Equipment	145,483	(15,206)	130,277	129,032	(1,246)
21		374	Reuse Distribution Reservoirs	-	-	-	-	-
22		375	Reuse Trans. and Dist. System	23,832	(11)	23,821	29,526	5,706
23		380	Treatment & Disposal Equipment	994,222	(122,388)	871,834	860,477	(11,356)
24		381	Plant Sewers	13,067	-	13,067	12,951	(116)
25		382	Outfall Sewer Lines	2,087	-	2,087	1,722	(365)
26		389	Other Sewer Plant & Equipment	-	-	-	-	-
27		390	Office Furniture & Equipment	2,570	-	2,570	933	(1,637)
28		390.1	Computers and Software	-	-	-	5,688	5,688
29		391	Transportation Equipment	-	-	-	-	-
30		392	Stores Equipment	-	(9)	(9)	-	9
31		393	Tools, Shop And Garage Equip	1,183	(45)	1,138	1,159	21
32		394	Laboratory Equip	2,363	(11)	2,352	2,455	104
33		395	Power Operated Equipment	-	-	-	-	-
34		396	Communication Equip	-	-	-	-	-
35		397	Miscellaneous Equipment	-	-	-	-	-
36		398	Other Tangible Plant	-	-	-	-	-
37		108	Accumulated Depreciation	0	-	0	-	(0)
38								
39								
40								
41								
42			Plant Held for Future Use					-
43			TOTALS	\$ 1,515,859	\$ (146,000)	\$ 1,369,859	\$ 1,362,650	\$ (7,209)

46 SUPPORTING SCHEDULE

47 B-2, page 4.1 to 4.3

48 B-2, pages 3.5 to 3.14

RECAP SCHEDULES:

B-2, page 4

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Original Cost Rate Base Proforma Adjustments
Adjustment 3

Exhibit
Schedule B-2
Page 5
Witness: Bourassa

Contributions-in-Aid of Construction (CIAC) and Accumulated Amortization

Line
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	Gross CIAC	Accumulated Amortization
Computed balance at end of Test Year	\$ 1,013,352	\$ 85,869
Book balance at end of Test Year	\$ -	\$ -
Increase (decrease)	\$ 1,013,352	\$ 85,869
Adjustment to CIAC/AA CIAC	\$ 1,013,352	\$ (85,869)
Label	3a	3b

SUPPORTING SCHEDULES
B-2, pages 5.1 to 5.4

RECAP SCHEDULES:
B-2, page 2

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Original Cost Rate Base Proforma Adjustments
Contributions-in-Aid of Construction and Amortization
Adjustment 3

Exhibit
Schedule B-2
Page 5.1
Witness: Bourassa

Line No.	Description	Vintage	Per Decision 12/31/2005	2006 Activity	Balance at 12/31/2006	2007 Activity	Balance at 12/31/2007	2008 Activity	Balance at 12/31/2008
1	Contributions-in-Aid (CIAC)	2006	-	400,000	400,000	-	400,000	-	400,000
2	Contributions-in-Aid (CIAC)	2006	-	613,352	613,352	-	613,352	-	613,352
3									
4	Total Contributions-in-Aid (CIAC)		-	1,013,352	1,013,352	-	1,013,352	-	1,013,352
5									
6	Amortization Rate	2006							
7	Amortization Rate	2006		1.00%		2.00%		2.00%	
8									
9									
10	Amortization	2006	-	-	-	-	-	-	-
11	Amortization	2006	-	6,134	6,134	12,267	18,401	-	-
12									
13	Total Amortization		-	6,134	6,134	12,267	18,401	-	-
14									
15									
16	Net CIAC	2006	-		400,000		400,000		400,000
17	Net CIAC	2006	-		607,218		594,951		613,352
18									
19	Total Net CIAC		(4,214,384)	-	1,007,218	-	994,951	-	1,013,352

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Original Cost Rate Base Proforma Adjustments
Contributions-in-Aid of Construction and Amortization
Adjustment 3

Exhibit
Schedule B-2
Page 5.2
Witness: Bourassa

Line No.	Description	Vintage	2009 Activity	Balance at 12/31/2009	2010 Activity	Balance at 12/31/2010	2011 Activity	Balance at 12/31/2011
1	Contributions-in-Aid (CIAC)	2006	-	400,000	-	400,000	-	400,000
2	Contributions-in-Aid (CIAC)	2006	-	613,352	-	613,352	-	613,352
3								
4	Total Contributions-in-Aid (CIAC)		-	1,013,352	-	1,013,352	-	1,013,352
5								
6	Amortization Rate	2006	2.00%		2.00%		2.00%	
7	Amortization Rate	2006						
8								
9								
10	Amortization	2006	-	-	-	-	-	-
11	Amortization	2006	12,267	12,267	12,267	24,534	12,267	36,801
12								
13	Total Amortization		12,267	12,267	12,267	24,534	12,267	36,801
14								
15								
16	Net CIAC	2006		400,000		400,000		400,000
17	Net CIAC	2006		601,085		588,818		576,551
18								
19	Total Net CIAC		-	1,001,085	-	988,818	-	976,551

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Original Cost Rate Base Proforma Adjustments
Contributions-in-Aid of Construction and Amortization
Adjustment 3

Exhibit
Schedule B-2
Page 5.3
Witness: Bourassa

Line No.	Description	Vintage	2012 Activity	Balance at 12/31/2012	2013 Activity	Balance at 12/31/2013	2014 Activity	Balance at 12/31/2014
1	Contributions-in-Aid (CIAC)	2006	-	400,000	-	400,000	-	400,000
2	Contributions-in-Aid (CIAC)	2006	-	613,352	-	613,352	-	613,352
3								
4	Total Contributions-in-Aid (CIAC)			1,013,352	-	1,013,352	-	1,013,352
5								
6	Amortization Rate	2006	2.00%		2.00%		2.00%	
7	Amortization Rate	2006						
8								
9								
10	Amortization	2006	-	-	-	-	-	-
11	Amortization	2006	12,267	49,068	12,267	61,335	12,267	73,602
12								
13	Total Amortization		12,267	49,068	12,267	61,335	12,267	73,602
14								
15								
16	Net CIAC	2006		400,000		400,000		400,000
17	Net CIAC	2006		584,284		552,017		539,750
18								
19	Total Net CIAC		-	964,284	-	952,017	-	939,750

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Original Cost Rate Base Proforma Adjustments
Contributions-in-Aid of Construction and Amortization
Adjustment 3

Exhibit
Schedule B-2
Page 5.4
Witness: Bourassa

Line No.	Description	Vintage 2006	2015 Activity	Balance at 10/31/2015
1	Contributions-in-Aid (CIAC)			
2	Contributions-in-Aid (CIAC)	Land	-	400,000
3		Collection Mains/Services		613,352
4			-	-
5	Total Contributions-in-Aid (CIAC)			1,013,352
6	Amortization Rate			
7	Amortization Rate	Land	2.00%	
8		Collection Mains/Services		
9				
10	Amortization			
11	Amortization	Land	-	-
12		Collection Mains/Services	12,267	85,869
13	Total Amortization		12,267	85,869
14				
15				
16	Net CIAC			400,000
17	Net CIAC	Land		527,483
18		Collection Mains/Services		
19	Total Net CIAC		-	927,483

Liberty Utilities (Entrada Del Oro Sewer) Corp.
 Test Year Ended October 31, 2015
 Original Cost Rate Base Proforma Adjustments
 Adjustment 4

Exhibit
 Schedule B-2
 Page 6.0
 Witness: Bourassa

Line No.	Deferred Income Tax as of December 31, 2015				Effective Tax Rate	Future Tax Asset		Future Tax Liability	
	Water & Sewer Adjusted Book Value	Water & Sewer Tax Value	Probability of Realization of Future Tax Benefit	Deductible TD (Taxable TD) Expected to be Realized		Current	Non Current	Current	Non Current
1									
2									
3									
4									
5									
6	Plant-in-Service	\$ 3,583,301							
7	Accum. Deprec.	(1,362,650)							
8	CIAC	(527,483)							
9	Fed. Fixed Assets	\$ 1,693,169	100.0%	\$ (714,999)	25.15%				(179,833)
10									
11	State Fixed Assets	\$ 1,693,169	100.0%	\$ (708,382)	4.900%				(34,711)
12									
13	Fed & State AIAC		100.0%	\$ -	30.05%	\$ -			
14									
15									
16									
17	Net Asset (Liability)					\$ -	\$ -	\$ -	\$ (214,544)
18									
19	Allocated Corporate ADIT ⁵					\$ (214,544)			
20						(40)			
21	Net Asset (Liability)					\$ (214,584)			
22									
23	Allocation Factor					1.0000			
24									
25	Net Asset (Liability)					\$ (214,584)			
26									
27	DIT Asset (Liability) per Books					\$ -			
28									
29	Adjustment to DIT					\$ 214,584			
30									
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									

Footnotes - See page 6.1

RECAP SCHEDULES:
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⁵ See work papers

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Reconstruction Cost New Less Depreciation Rate Base Proforma Adjustments

Exhibit
Schedule B-3
Page 1
Witness: Bourassa

Line No.		RCN at End of Test Year	Proforma Adjustment	RCN Adjusted at end of Test Year
1	Gross Utility			
2	Plant in Service	\$ 6,830,326	(307,714)	\$ 6,522,612
3				
4	Less:			
5	Accumulated			
6	Depreciation	2,070,770	(150,247)	1,920,523
7				
8				
9	Net Utility Plant			
10	in Service	\$ 4,759,555		\$ 4,602,089
11				
12	Less:			
13	Advances in Aid of			
14	Construction	-	-	-
15				
16	Contributions in Aid of			
17	Construction - Gross	-	1,522,616	1,522,616
18				
19	Accumulated Amortization of CIAC	-	(155,486)	(155,486)
20				
21	Customer Meter Deposits	-	-	-
22	Customer Security Deposits	2,360	-	2,360
23	Accumulated Deferred Income Tax	-	405,292	405,292
24				-
25				-
26				
27	Plus:			
28	Unamortized Finance			
29	Charges	-	-	-
30	Prepayments	16,048	-	16,048
31	Materials and Supplies	-	-	-
32	Cash Working capital	-	(23,189)	(23,189)
33				-
34				
35	Total	<u>\$ 4,773,244</u>		<u>\$ 2,820,167</u>

SUPPORTING SCHEDULES:
B-3, page 2

RECAP SCHEDULES:
B-1

Liberty Utilities (Entrada Del Oro Sewer) Corp.

Test Year Ended October 31, 2015

Reconstruction Cost New Less Depreciation Rate Base Proforma Adjustments

Exhibit
Schedule B-3
Page 2
Witness: Bourassa

Line No.		RCN at End of Test Year	1	2	Proforma Adjustments		ADIT	Working Capital	RCN Adjusted at end of Test Year
					3	4			
1	Gross Utility								
2	Plant in Service	\$ 6,830,326	(307,714)						\$ 6,522,612
3									
4	Less:								
5	Accumulated								
6	Depreciation	2,070,770		(150,247)					1,920,523
7									
8									
9	Net Utility Plant								
10	in Service	\$ 4,759,555	\$ (307,714)	\$ 150,247					\$ 4,602,089
11									
12	Less:								
13	Advances in Aid of								
14	Construction	-							-
15									
16	Contributions in Aid of								
17	Construction (CIAC)	-			1,522,616				1,522,616
18					(155,486)				(155,486)
19	Accumulated Amort of CIAC								
20									
21	Customer Deposits	-							-
22	Customer Security Deposits	2,360							2,360
23	Accumulated Deferred Income Taxes	-					405,292		405,292
24									
25									
26	Plus:								
27	Unamortized Finance								
28	Charges	-							-
29	Prepayments	16,048							16,048
30	Materials and Supplies	-							-
31	Cash Working Capital	-						(23,189)	(23,189)
32									
33	Total	\$ 4,773,244	\$ (307,714)	\$ 150,247	\$ (1,367,129)	\$ -	\$ (405,292)	\$ (23,189)	\$ 2,820,167
34									
35									
36									
37									
38									
39									
40									
41									

SUPPORTING SCHEDULES:

B-3, pages 3-4

RECAP SCHEDULE
B-3, page 1

Liberty Utilities (Entrada Del Oro Sewer) Corp.

Test Year Ended October 31, 2015
Reconstruction Cost New Less Depreciation Rate Base Proforma Adjustments
Adjustment Number 1

Exhibit
Schedule B-3
Page 3
Witness: Bourassa

Plant-in-Service

Line No.	Acct. No.	Description	Adjustments					Adjusted RCN Cost
			A	B	C	D	E	
			Allocated Corporate Plant	Plant Held for Future Use	Intentionally Left Blank	Intentionally Left Blank	Intentionally Left Blank	
1	351	Organization						
2	352	Franchise						
3	353	Land						
4	354	Structures & Improvements						
5	355	Power Generation		(59,026)				412,000
6	360	Collection Sewer Forced						1,239,996
7	361	Collection Sewers Gravity						85,000
8	362	Special Collecting Structures						7,464
9	363	Customer Services						1,648,990
10	364	Flow Measuring Devices						
11	365	Flow Measuring Installations						375,300
12	366	Reuse Services						6,000
13	367	Reuse Meters And Installation						3,000
14	370	Receiving Wells						
15	371	Pumping Equipment						
16	374	Reuse Distribution Reservoirs		(8,718)				44,300
17	375	Reuse Trans. and Dist. System						87,861
18	380	Treatment & Disposal Equipment						
19	381	Plant Sewers		(267,280)				450,550
20	382	Outfall Sewer Lines						1,958,835
21	388	Other Sewer Plant & Equipment						88,095
22	390	Office Furniture & Equipment						62,680
23	391	Computers and Software						
24	391	Transportation Equipment						1,747
25	392	Stores Equipment						12,188
26	393	Tools, Shop And Garage Equip						
27	394	Laboratory Equip						5,348
28	395	Power Operated Equipment						5,947
29	396	Communication Equip						
30	397	Miscellaneous Equip.						
31	398	Other Tangible Plant						
32								
33		SUBTOTAL	6,830,326	(335,023)	-	-	-	6,495,302
34								
35	903	Land and Land Rights						
36	904	Structures and Improvements	1,129					1,129
37	940	Office Furniture & Equipment	12,332					12,332
38	940.1	Computers and Software	1,334					1,334
39			12,514					12,514
40								
41		Plant Held for Future Use						
42		TOTALS	27,309	(335,023)	-	-	-	6,522,612
43								
44		Plant-in-Service per Books						6,830,326
45								
46		Increase (decrease) in Plant-in-Service						
47								
48		Adjustment to Plant-in-Service						(307,714)
49								
50		SUPPORTING SCHEDULES						
51		B-3, page 3.1 to 3.2						
52		B-4						

RECAP SCHEDULES.
B-3, page 2

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Reconstruction Cost New Less Depreciation Rate Base Proforma Adjustments
Adjustment Number 1 - A

Exhibit
Schedule B-3
Page 3.1
Witness: Bourassa

Line
No.

1	<u>RCN Allocated Corporate Plant</u>				
2		[1]	[2]	[3]	[4] = [1]x[2]x[3]
3			Liberty		Allocated
4	Acct.	Original	Utilities	EDO	Original
5	<u>No.</u> <u>Description</u>	<u>Cost</u>	<u>Factor</u>	<u>Factor</u>	<u>Cost</u>
6	903 Land and Land Rights	1,396,196	15.64%	0.52%	1,129
7	904 Structures and Improvments	12,560,664	15.64%	0.52%	10,157
8	940.1 Computers and Software	2,187,630	15.64%	0.52%	1,769
9					
10					
11	LU Sub-Corp. Plant				
12					
13	903 Land and Land Rights	-		0.52%	-
14	904 Structures and Improvments	420,651		0.52%	2,175
15	940 Office Furniture and Equipmen	258,089		0.52%	1,334
16	940.1 Computers and Software	2,078,183		0.52%	10,745
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
41	TOTALS	\$	18,901,413	\$	27,309

42
43 SUPPORTING SCHEDULE
44 Testimony
45 Work papers

RECAP SCHEDULES:
B-3, page 3

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Reconstruction Cost New Less Depreciation Rate Base Proforma Adjustments
Adjustment Number 1 - B

Exhibit
Schedule B-2
Page 3.2
Witness: Bourassa

Line

No.

1 Capacity Adjustment

2

3

4 Acct.

Original

5 No. Description

Cost

Factor¹

RCN

6 351 Organization

-

7 352 Franchise

-

8 353 Land

1.03

9 354 Structures & Improvements

(26,200)

2.25

(59,026)

10 355 Power Generation

0.68

11 360 Collection Sewer Forced

1.05

12 361 Collection Sewers Gravity

3.43

13 362 Special Collecting Structures

-

14 363 Customer Services

3.06

15 364 Flow Measuring Devices

1.56

16 365 Flow Measuring Installations

1.22

17 366 Reuse Services

-

18 367 Reuse Meters And Installation

-

19 370 Receiving Wells

1.69

20 371 Pumping Equipment

(15,200)

0.57

(8,718)

21 374 Reuse Distribution Reservoirs

-

22 375 Reuse Trans. and Dist. System

3.56

23 380 Treatment & Disposal Equipment

(257,600)

1.04

(267,280)

24 381 Plant Sewers

3.17

25 382 Outfall Sewer Lines

11.31

26 389 Other Sewer Plant & Equipment

-

27 390 Office Furniture & Equipment

1.00

28 390.1 Computers and Software

1.00

29 391 Transportation Equipment

-

30 392 Stores Equipment

-

31 393 Tools, Shop And Garage Equip

1.00

32 394 Laboratory Equip

1.00

33 395 Power Operated Equip

-

34 396 Communication Equip

-

35 397 Miscellaneous Equip.

-

36 398 Other Tangible Plant

-

37

38 TOTALS

\$ (299,000)

\$ (335,023)

39

40 ¹ Factors see Schedule B-4

41

42 SUPPORTING SCHEDULE

RECAP SCHEDULES:

43 Testimony

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44 Work papers

Liberty Utilities (Entrada Del Oro Sewer) Corp.
 Test Year Ended October 31, 2015
 Reconstruction Cost New Less Depreciation Rate Base Proforma Adjustments
 Adjustment Number 2

Exhibit
 Schedule B-3
 Page 4
 Witness: Bourassa

Accumulated Depreciation

Line No.	Acct. No.	Description	RCN Accum. Depr.	A Allocated Corporate Plant	B Plant Held for Future Use	C Intentionally Lent Blank	D Intentionally Lent Blank	RCN Adjusted Accum. Depr.
1								
2								
3								
4								
5								
6	351	Organization	-					
7	352	Franchise	-					
8	353	Land	-					
9	354	Structures & Improvements	375,335					
10	355	Power Generation	23,835		(18,673)			356,662
11	360	Collection Sewer Forced	1,383					23,835
12	361	Collection Sewers Gravity	299,733					1,383
13	362	Special Collecting Structures	-					299,733
14	363	Customer Services	-					
15	364	Flow Measuring Devices	70,056					70,056
16	365	Flow Measuring Installations	5,600					5,600
17	366	Reuse Services	2,800					2,800
18	367	Reuse Meters And Installation	-					
19	370	Receiving Wells	-					
20	371	Pumping Equipment	13,768					13,768
21	374	Reuse Distribution Reservoirs	82,725		(8,716)			74,007
22	375	Reuse Trans. and Dist. System	-					
23	380	Treatment & Disposal Equipment	105,128					105,128
24	381	Plant Sewers	1,019,768		(126,958)			892,811
25	382	Outfall Sewer Lines	41,111					41,111
26	389	Other Sewer Plant & Equipment	19,481					19,481
27	390	Office Furniture & Equipment	-					
28	390.1	Computers and Software	833					833
29	381	Transportation Equipment	5,688					5,688
30	382	Stores Equipment	-					
31	383	Tools, Shop And Garage Equip	-					
32	394	Laboratory Equip	1,159					1,159
33	395	Power Operated Equipment	2,455					2,455
34	396	Communication Equipment	-					
35	397	Miscellaneous Equip.	-					
36	398	Other Tangible Plant	-					
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54								
55								
56	903	Land and Land Rights	-		(154,349)			1,916,421
57	904	Structures and Improvements	-	648				-
58	940	Office Furniture & Equipment	-	111				648
59	940.1	Computers and Software	-	3,342				111
60		Plant Held for Future Use						3,342
61		TOTALS	\$ 2,070,770	\$ 4,101	\$ (154,349)	\$ -	\$ -	\$ 1,920,523
62		Accumulated Depreciation per Books						\$ 2,070,770
63		Increase (decrease) in Accumulated Depreciation						\$ (150,247)
64		Adjustment to Accumulated Depreciation						\$ (150,247)
65								\$ (150,247)
66								
67								
68								
69								
70								
71								

RECAP SCHEDULES:
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SUPPORTING SCHEDULES
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Liberty Utilities (Entrada Del Oro Sewer) Corp.
 Test Year Ended October 31, 2015
 Reconstruction Cost New Less Depreciation Rate Base Proforma Adjustments
 Adjustment Number 2 - A

Exhibit
 Schedule B-3
 Page 4.1
 Witness: Bourassa

Line

<u>No.</u>			[1] Original Cost <u>A/D</u>	[2] Liberty Utilities <u>Factor</u>	[3] EDO <u>Factor</u>	[4] = [1]x[2]x[3] Allocated Original <u>Cost</u>
1	<u>RCN Corporate Plant A/D</u>					
2						
3						
4	Acct.					
5	<u>No.</u>	<u>Description</u>				
6	903	Land and Land Rights	\$ -	15.64%	0.52%	-
7	904	Structures and Improvments	322,068	15.64%	0.52%	260
8	940.1	Computers and Software	218,763	15.64%	0.52%	177
9						
10						
11	<u>LU Sub-Corp. Plant</u>					
12						
13	903	Land and Land Rights	-		0.52%	-
14	904	Structures and Improvments	74,974		0.52%	388
15	940	Office Furniture and Equipmer	21,535		0.52%	111
16	940.1	Computers and Software	612,134		0.52%	3,165
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						
41	TOTALS		\$ 1,249,474			\$ 4,101
42						
43						

44 SUPPORTING SCHEDULE

45 Work papers

46

RECAP SCHEDULES:

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Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Reconstruction Cost New Less Depreciation Rate Base Proforma Adjustments
Adjustment Number 1 - B

Exhibit
Schedule B-3
Page 4.2
Witness: Bourassa

Line

No.

1 A/D Plant Held for Future Use

2

3

4 Acct.

A/D
Original

Factor¹

A/D
RCN

5 No.

6 Description

7 351

8 352

9 353

10 354

11 355

12 360

13 361

14 362

15 363

16 364

17 365

18 366

19 367

20 370

21 371

22 374

23 375

24 380

25 381

26 382

27 389

28 390

29 390.1

30 391

31 392

32 393

33 394

34 395

35 396

36 397

37 398

38

39

40

41

42

43

44

Organization
Franchise
Land
Structures & Improvements
Power Generation
Collection Sewer Forced
Collection Sewers Gravity
Special Collecting Structures
Customer Services
Flow Measuring Devices
Flow Measuring Installations
Reuse Services
Reuse Meters And Installation
Receiving Wells
Pumping Equipment
Reuse Distribution Reservoirs
Reuse Trans. and Dist. System
Treatment & Disposal Equipment
Plant Sewers
Outfall Sewer Lines
Other Sewer Plant & Equipment
Office Furniture & Equipment
Computers and Software
Transportation Equipment
Stores Equipment
Tools, Shop And Garage Equip
Laboratory Equip
Power Operated Equip
Communication Equip
Miscellaneous Equip.
Other Tangible Plant

(8,288)

2.25

(18,673)

(15,200)

0.57

(8,718)

(122,360)

1.04

(126,958)

TOTALS

\$ (145,848)

\$ (154,349)

¹ Factors see Schedule B-4

SUPPORTING SCHEDULE

Testimony

Work papers

RECAP SCHEDULES:

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Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Reconstruction Cost New Less Depreciation Rate Base Proforma Adjustments
Adjustment Number 3

Exhibit
Schedule B-3
Page 5
Witness: Bourassa

Contributions-in-Aid of Construction

Line No.		Gross CIAC	Amortization
1			
2	Adjusted Original Cost Depreciable Balance	\$ 613,352	\$ 85,869
3			
4	Gross-up Factor [1]	1.81	1.81
5			
6	RCN Depreciable Balance	\$ 1,110,616	\$ 155,486
7			
8	Adjusted Original Cost Non-depreciable Balance	\$ 400,000	\$ -
9			
10	Gross-up Factor [2]	1.03	1.03
11			
12	RCN Non-depreciable Balance	\$ 412,000	\$ -
13			
14	Total RCN Balance	\$ 1,522,616	\$ 155,486
15			
16	Unadjusted RCN Balance	-	-
17			
18	Adjustment to RCN Balance	\$ 1,522,616	\$ (155,486)
19			
20			
21	[1] Computation of Gross-up Factor for Depreciable Plant		
22	RCNLD Depreciable Gross Plant-in-Service	\$ 6,418,326	
23	Original Cost Depreciable Gross Plant-in-service	\$ 3,544,604	
24			
25	Ratio of RCNLD Depreciable Gross Plant-in-Service		
26	and Original Cost Depreciable Gross Plant-in-service	1.81	
27			
28	[2] Computation of Gross-up Factor for Depreciable Plant		
29	RCNLD Non-depreciable Gross Plant-in-Service	\$ 412,000	
30	Original Cost Non-depreciable Gross Plant-in-service	\$ 400,000	
31			
32	Ratio of RCNLD Non-depreciable Gross Plant-in-Service		
33	and Original Cost Non-depreciable Gross Plant-in-service	1.03	
34			
35			
36	<u>SUPPORTING SCHEDULE</u>		
37	B-2, page 5.3		
38	B-2, page 2		
39	B-2, page 3		
40	B-4		

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Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Reconstruction Cost New Less Depreciation Rate Base Proforma Adjustments
Adjustment Number 4

Exhibit
Schedule B-3
Page 6
Witness: Bourassa

Advances-in-Aid of Construction

Line
No.

1			<u>AIAC</u>
2	Adjusted Original Cost Depreciable Balance	\$	-
3			
4	Gross-up Factor [1]		1.81
5			
6	RCN Depreciable Balance	\$	-
7			
8	Unadjusted RCN Balance		-
9			
10	Adjustment to ADIT Balance	\$	-
11			
12			
13	[1] Computation of Gross-up Factor for Depreciable Plant		
14	RCNLD Depreciable Gross Plant-in-Service	\$	6,418,326
15	Original Cost Depreciable Gross Plant-in-service	\$	3,544,604
16			
17	Ratio of RCNLD Depreciable Gross Plant-in-Srvce		
18	and Original Cost Depreciable Gross Plant-in-service		1.81
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29	<u>SUPPORTING SCHEDULE</u>		<u>RECAP SCHEDULES:</u>
30	B-2, page 5.3		B-3, page 2
31	B-2, page 2		
32	B-4		

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Reconstruction Cost New Less Depreciation Rate Base Proforma Adjustments
Adjustment Number 5

Exhibit
Schedule B-3
Page 7
Witness: Bourassa

Accumulated Deferred Income Taxes (ADIT)

Line
No.

1			
2	Adjusted Original Cost ADIT Balance	\$	214,584
3			
4	RCNLD Net Rate Base before ADIT	\$	3,232,599
5	Original Cost Net Rate Base before ADIT	\$	1,711,518
6			
7	Ratio of RCNLD Net Rate Base before ADIT		
8	and Original Cost Net Rate Base before ADIT		1.89
9			
10	RCNLD ADIT Balance	\$	405,292
11			
12	Adjustment to ADIT Balance	\$	<u>405,292</u>
13			
14			

15 SUPPORTING SCHEDULE
16 B-2, page 5
17

RECAP SCHEDULES:
B-3, page 2

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Reconstruction Cost New Less Depreciation Rate Base Proforma Adjustments
Adjustment Number 6

Exhibit
Schedule B-3
Page 8
Witness: Bourassa

RCN Working Capital

Line

No.

1

2

Cash Working Capital

\$ (23,189)

3

4

RCNLD Factor

1.00

5

6

Recommended RCNLD Cash Working Capital

\$ (23,189)

7

8

Adjustment to ADIT Balance

\$ (23,189)

9

10

11

12

13

14

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18

SUPPORTING SCHEDULE

19

B-5

RECAP SCHEDULES:

B-3, page 2

20

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended December 31, 2001
Reconstruction Cost New Less Depreciation Plant and Accumulated Depreciaton

Exhibit
Schedule B-4
Page 1
Witness: Bourassa

Line No.	Plant Acct.	Description	Adjusted Original Cost	RCN	Adjusted Original Cost A/D	RCN Factor	RCN	
			Before Capacity Adj		Before Capacity Adj		A/D	RCNLD
1	351	Organization	\$ 37,898	-	\$ -	-	\$ -	\$ -
2	352	Franchise	799	-	-	-	-	-
3	353	Land	400,000	412,000	-	1.03	-	412,000
4	354	Structures & improvements	576,601	1,299,022	166,601	2.25	375,335	923,687
5	355	Power Generation	124,916	85,000	34,735	0.68	23,635	61,365
6	360	Collection Sewer Forced	7,141	7,464	1,333	1.05	1,393	6,071
7	361	Collection Sewers Gravity	480,710	1,648,990	87,377	3.43	299,733	1,349,257
8	362	Special Collecting Structures	-	-	-	-	-	-
9	363	Customer Services	122,760	375,300	22,915	3.06	70,056	305,244
10	364	Flow Measuring Devices	3,845	6,000	3,589	1.56	5,600	400
11	365	Flow Measuring Installations	2,457	3,000	2,293	1.22	2,800	200
12	366	Reuse Services	-	-	-	-	-	-
13	367	Reuse Meters And Installation	-	-	-	-	-	-
14	370	Receiving Wells	26,226	44,300	8,151	1.69	13,768	30,532
15	371	Pumping Equipment	168,387	96,579	144,232	0.57	82,725	13,854
16	374	Reuse Distribution Reservoirs	-	-	-	-	-	-
17	375	Reuse Trans. and Dist. System	126,541	450,550	29,526	3.56	105,128	345,422
18	380	Treatment & Disposal Equipment	2,145,496	2,226,115	982,837	1.04	1,019,768	1,206,347
19	381	Plant Sewers	27,752	88,095	12,951	3.17	41,111	46,984
20	382	Outfall Sewer Lines	5,541	62,680	1,722	11.31	19,481	43,199
21	389	Other Sewer Plant & Equipment	-	-	-	-	-	-
22	390	Office Furniture & Equipment	1,747	1,747	933	1.00	933	814
23	390.1	Computers and Software	12,188	12,188	5,688	1.00	5,688	6,500
24	391	Transportation Equipment	-	-	-	-	-	-
25	392	Stores Equipment	-	-	-	-	-	-
26	393	Tools, Shop And Garage Equip	5,348	5,348	1,159	1.00	1,159	4,189
27	394	Laboratory Equip	5,947	5,947	2,455	1.00	2,455	3,492
28	395	Power Operated Equip	-	-	-	-	-	-
29	396	Communication Equip	-	-	-	-	-	-
30	397	Miscellaneous Equip.	-	-	-	-	-	-
31	398	Other Tangible Plant	-	-	-	-	-	-
32		TOTALS	\$ 4,282,301	\$ 6,830,326	\$ 1,508,498	1.60	\$ 2,070,770	\$ 4,759,555

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Cash Working Capital

Exhibit
Schedule B-5
Page 1
Witness: Bourassa

Line No.	Description	Proforma Test Year Amount ¹	Revenue Lag (Lead) Days	Expense Lag (Lead) Days	Net Lag (Lead) Days	Lead/Lag Factor	Cash Working Capital Required
	(A)	(B)	(C)	(D)	(E)	(F)	Col. B * Col. F
7	OPERATING EXPENSES						
8	Salaries and Wages	\$ -	0.61	-	0.61	0.001675	\$ -
9	Purchased Water	2,379	0.61	27.32	(26.71)	(0.073175)	(174)
10	Sludge Removal	2,204	0.61	186.00	(185.39)	(0.507914)	(1,120)
11	Purchased Power	16,374	0.61	48.89	(48.28)	(0.132271)	(2,166)
12	Fuel for Power Production	-	0.61	-	0.61	0.001675	-
13	Chemicals	770	0.61	-	0.61	0.001675	1
14	Materials and Supplies	3,171	0.61	10.18	(9.57)	(0.026216)	(83)
15	Contractual Services - Professional	46,007	0.61	20.00	(19.39)	(0.053120)	(2,444)
16	Contractual Services - Testing	11,872	0.61	31.79	(31.18)	(0.085421)	(1,014)
17	Contractual Services - Other	12,995	0.61	22.71	(22.10)	(0.060545)	(787)
18	Rents	-	0.61	-	0.61	0.001675	-
19	Transportation	100	0.61	31.25	(30.64)	(0.083942)	(8)
20	Insurance	6,288	0.61	-	0.61	0.001675	11
21	Miscellaneous	21,362	0.61	(80.00)	80.61	0.220853	4,718
22	Interest Expense (Synchronized)	22,606	0.61	14.71	(14.10)	(0.038627)	(873)
23							
24							
25	TAXES						
26	General Taxes-Property ¹	\$ 22,243	0.61	213.96	(213.35)	(0.58451263)	\$ (13,001)
27	General Taxes-Other	-	0.61	-	0.61	0.00167459	-
28	Income Tax ¹	62,674	0.61	37.00	(36.39)	(0.09969527)	(6,248)
29							
30	OTHER						
31							
32							
33	TOTAL	\$ 231,045					\$ (23,189)
34							
35							
36							
37							
38							
39							

¹At proposed rates.

RECAP SCHEDULES:
B-2, page 2

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Income Statement

Exhibit
Schedule C-1
Page 1
Witness: Bourassa

Line No.		Test Year Book Results	Adjustment	Test Year Adjusted Results	Proposed Rate Increase	Adjusted with Rate Increase
1	Revenues					
2	Metered Water Revenues	\$ 281,183	\$ (1,470)	\$ 279,713	\$ 254,643	\$ 534,356
3	Unmetered Water Revenues	-	-	-		-
4	Other Water Revenues	1,575	-	1,575		1,575
5		<u>\$ 282,758</u>	<u>\$ (1,470)</u>	<u>\$ 281,288</u>	<u>\$ 254,643</u>	<u>\$ 535,931</u>
6	Operating Expenses					
7	Salaries and Wages	\$ -	-	\$ -		\$ -
8	Purchased Water	2,379	-	2,379		2,379
9	Sludge Removal	2,204	-	2,204		2,204
10	Purchased Power	16,374	-	16,374		16,374
11	Fuel for Power Production	-	-	-		-
12	Chemicals	770	-	770		770
13	Materials and Supplies	3,171	-	3,171		3,171
14	Contractual Services - Professional	40,990	5,018	46,007		46,007
15	Contractual Services - Testing	11,872	-	11,872		11,872
16	Contractual Services - Other	12,995	-	12,995		12,995
17	Rents	-	-	-		-
18	Office Supplies and Expense	-	-	-		-
19	Transportation	100	-	100		100
20	Insurance	6,288	-	6,288		6,288
21	Regulatory Commission	-	43,333	43,333		43,333
22	Miscellaneous	21,362	-	21,362		21,362
23	Depreciation and Amortization	168,567	(33,493)	135,073		135,073
24	Taxes Other Than Income	-	-	-		-
25	Property Taxes	34,283	(17,221)	17,062	5,181	22,243
26	Income Taxes	-	(12,294)	(12,294)	74,968	62,674
27	Total Operating Expenses	<u>\$ 321,354</u>	<u>\$ (14,656)</u>	<u>\$ 306,697</u>	<u>\$ 80,148</u>	<u>\$ 386,846</u>
28	Operating Income	<u>\$ (38,596)</u>	<u>\$ 13,186</u>	<u>\$ (25,409)</u>	<u>\$ 174,495</u>	<u>\$ 149,085</u>
29	Other Income (Expense)					
30	Interest and Dividend Income	-	-	-		-
31	AFUDC Income	-	-	-		-
32	Miscellaneous Non-Utility Expenses	-	-	-		-
33	Interest Expense	(94)	(22,511)	(22,606)		(22,606)
34						
35	Total Other Income (Expense)	<u>\$ (94)</u>	<u>\$ (22,511)</u>	<u>\$ (22,606)</u>	<u>\$ -</u>	<u>\$ (22,606)</u>
36	Net Profit (Loss)	<u>\$ (38,690)</u>	<u>\$ (9,325)</u>	<u>\$ (48,015)</u>	<u>\$ 174,495</u>	<u>\$ 126,479</u>

SUPPORTING SCHEDULES:

C-1, page 2

E-2

RECAP SCHEDULES:

A-1

Exhibit
Schedule C-1
Page 2
Witness: Bourassa

Line No.	Label	1	2	3	4	5	6	7	8	Test Year Adjusted Results	Proposed Rate Increase	Adjusted with Rate Increase
		Test Year Book Results	Property Taxes	Rate Case Expense	Revenue Annualization	Corporate Costs Non-Labor	Corporate Costs Labor	Interest Strich	Income Taxes			
1	Revenues											
2	Flat Rate Revenues	\$ 281,183								\$ 279,713	\$ 254,643	\$ 534,356
3	Metered Water Revenues	-								-		-
4	Other Water Revenues	-			(1,470)					-		-
5		1,575								1,575		1,575
6	Operating Expenses	\$ 282,758	\$ -	\$ -	\$ (1,470)	\$ -	\$ -	\$ -	\$ -	\$ 281,288	\$ 254,643	\$ 535,931
7	Salaries and Wages	-								-		-
8	Purchased Water	2,379								2,379		2,379
9	Sludge Removal	2,204								2,204		2,204
10	Purchased Power	16,374								16,374		16,374
11	Fuel for Power Production	-								-		-
12	Chemicals	770								770		770
13	Materials and Supplies	3,171								3,171		3,171
14	Contractual Services - Professional	40,990								40,990		40,990
15	Contractual Services - Testing	11,872				3,882	1,135			11,872		11,872
16	Contractual Services - Other	12,995								12,995		12,995
17	Office Supplies and Expense	-								-		-
18	Rents	-								-		-
19	Transportation	100								-		-
20	Insurance	6,288								6,288		6,288
21	Regulatory Commission Expense	-								-		-
22	Miscellaneous	21,362		43,333						43,333		43,333
23	Depreciation and Amortization	168,567	(33,493)							21,362		21,362
24	Taxes Other Than Income	-								135,073		135,073
25	Property Taxes	34,283	(17,221)							-		-
26	Income Taxes	-								17,062	5,181	22,243
27									(12,294)	(12,294)	74,968	62,674
28	Total Operating Expenses	\$ 321,354	\$ (33,493)	\$ 43,333	\$ -	\$ 3,882	\$ 1,135	\$ -	\$ (12,294)	\$ 308,897	\$ 80,148	\$ 388,846
29	Operating Income	\$ (38,596)	\$ 17,221	\$ (43,333)	\$ (1,470)	\$ (3,882)	\$ (1,135)	\$ -	\$ 12,294	\$ (25,409)	\$ 174,495	\$ 149,085
30	Other Income (Expense)											
31	Interest and Dividend Income	-								-		-
32	AFUDC Income	-								-		-
33	Miscellaneous Non-Utility Expenses	-								-		-
34	Interest Expense	(94)								-		-
35								(22,511)		(22,606)		(22,606)
36	Total Other Income (Expense)	\$ (94)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (22,511)	\$ -	\$ (22,606)	\$ -	\$ (22,606)
37	Net Profit (Loss)	\$ (38,690)	\$ 33,493	\$ 17,221	\$ (43,333)	\$ (3,882)	\$ (1,135)	\$ (22,511)	\$ 12,294	\$ (48,015)	\$ 174,495	\$ 129,479
38												
39	SUPPORTING SCHEDULES:											
40	C-2											
41	E-2											
42												

RECAP SCHEDULES:
C-1, page 1

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Adjustments to Revenues and Expenses

Exhibit
Schedule C-2
Page 1
Witness: Bourassa

Line No.	<u>Adjustments to Revenues and Expenses</u>						<u>Subtotal</u>
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	
	<u>Depreciation</u>	<u>Property Taxes</u>	<u>Rate Case Expense</u>	<u>Revenue Annualization</u>	<u>Corporate Costs Non-Labor</u>	<u>Corporate Costs Labor</u>	
1 Revenues	-	-	-	(1,470)	-	-	(1,470)
2							
3							
4 Expenses	(33,493)	(17,221)	43,333	-	3,882	1,135	(2,363)
5							
6							
7							
8 Operating Income	33,493	17,221	(43,333)	(1,470)	(3,882)	(1,135)	893
9							
10							
11 Interest Expense							-
12							
13 Other Income / Expense							-
14							
15							
16							
17 Net Income	33,493	17,221	(43,333)	(1,470)	(3,882)	(1,135)	893
18							
19							
20							
21	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>Subtotal</u>
22	<u>Interest Synch</u>	<u>Income Taxes</u>	<u>Intentionally Left Blank</u>	<u>Intentionally Left Blank</u>	<u>Intentionally Left Blank</u>	<u>Intentionally Left Blank</u>	
23	-	-	-	-	-	-	(1,470)
24							
25 Revenues	-	-	-	-	-	-	(1,470)
26							
27 Expenses	-	(12,294)	-	-	-	-	(14,656)
28							
29 Operating Income	-	12,294	-	-	-	-	13,186
30							
31							
32 Interest Expense	(22,511)						(22,511)
33							
34 Other Income / Expense							-
35							
36							
37							
38 Net Income	(22,511)	12,294	-	-	-	-	(9,325)
39							
40							

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Adjustments to Revenues and Expenses
Adjustment Number 1

Exhibit
Schedule C-2
Page 2
Witness: Bourassa

Depreciation Expense

Line	Acct.		Adjusted Original	Non-Depr. or Fully Depr. Plant	Depr Original Cost	Proposed Rates	Depreciation Expense
No.	No.	Description	Cost		Cost		
1	351	Organization	37,898	(37,898)	-	0.00%	-
2	352	Franchise	799	(799)	-	0.00%	-
3	353	Land	400,000	(400,000)	-	0.00%	-
4	354	Structures & Improvements	550,401		550,401	3.33%	18,328
5	355	Power Generation	124,916		124,916	5.00%	6,246
6	360	Collection Sewer Forced	7,141		7,141	2.00%	143
7	361	Collection Sewers Gravity	480,710		480,710	2.00%	9,614
8	362	Special Collecting Structures	-		-	2.00%	-
9	363	Customer Services	122,760		122,760	2.00%	2,455
10	364	Flow Measuring Devices	3,845		3,845	10.00%	385
11	365	Flow Measuring Installations	2,457		2,457	10.00%	246
12	366	Reuse Services	-		-	2.00%	-
13	367	Reuse Meters And Installation	-		-	8.33%	-
14	370	Receiving Wells	26,226		26,226	3.33%	873
15	371	Pumping Equipment	153,187	(124,416)	28,771	12.50%	3,596
16	374	Reuse Distribution Reservoirs	-		-	2.50%	-
17	375	Reuse Trans. and Dist. System	126,541		126,541	2.50%	3,164
18	380	Treatment & Disposal Equipment	1,887,896		1,887,896	5.00%	94,395
19	381	Plant Sewers	27,752		27,752	5.00%	1,388
20	382	Outfall Sewer Lines	5,541		5,541	3.33%	185
21	389	Other Sewer Plant & Equipment	-		-	6.67%	-
22	390	Office Furniture & Equipment	1,747		1,747	6.67%	117
23	390.1	Computers and Software	12,188		12,188	20.00%	2,438
24	391	Transportation Equipment	-		-	20.00%	-
25	392	Stores Equipment	-		-	4.00%	-
26	393	Tools, Shop And Garage Equip	5,348		5,348	5.00%	267
27	394	Laboratory Equip	5,947		5,947	10.00%	595
28	395	Power Operated Equipment	-		-	5.00%	-
29	396	Communication Equip	-		-	10.00%	-
30	397	Miscellaneous Equip.	-		-	10.00%	-
31							
32	903	Land and Land Rights	1,129		1,129	0.00%	-
33	904	Structures and Improvments	12,332		12,332	2.56%	316
34	940	Office Furniture & Equipment	1,334		1,334	6.67%	89
35	940.1	Computers and Software	12,514		12,514	20.00%	2,503
36							
37		TOTALS	\$ 4,010,610	\$ (563,113)	\$ 3,447,498		\$ 147,340
38							
39		Less: Amortization of Contributions					
40			Gross	Non-Depr or Fully Amortized	Amortizable		
41			CIAC	CIAC	CIAC	Amort. Rate ¹	
42		Contributions in Aid of Construction	\$ 1,013,352	\$ (400,000)	\$ 613,352	2.0000%	\$ (12,267)
43							
44		Totals	\$ 1,013,352	\$ (400,000)	\$ 613,352		\$ (12,267)
45							
46		Total Depreciation Expense					\$ 135,073
47							
48		Adjusted Test Year Depreciation Expense					\$ 168,567
49							
50		Increase (decrease) in Depreciation Expense					\$ (33,493)
51							
52		Adjustment to Revenues and/or Expenses					\$ (33,493)
53							

54 SUPPORTING SCHEDULE

55 B-2, page 3

56

¹ Amortization rate is based upon collection mains and customer services depreciation rate

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Adjustment to Revenues and Expenses
Adjustment Number 2

Exhibit
Schedule C-2
Page 3
Witness: Bourassa

Property Taxes

Line No.	DESCRIPTION	Test Year as adjusted	Company Recommended
1	Company Adjusted Test Year Revenues	\$ 281,288	\$ 281,288
2	Weight Factor	2	2
3	Subtotal (Line 1 * Line 2)	562,576	562,576
4	Company Recommended Revenue	281,288	535,931
5	Subtotal (Line 4 + Line 5)	843,863	1,098,506
6	Number of Years	3	3
7	Three Year Average (Line 5 / Line 6)	281,288	366,169
8	Department of Revenue Multiplier	2	2
9	Revenue Base Value (Line 7 * Line 8)	562,576	732,338
10	Plus: 10% of CWIP (intentionally excluded)	-	-
11	Less: Net Book Value of Licensed Vehicles	3,492	3,492
12	Full Cash Value (Line 9 + Line 10 - Line 11)	559,084	728,846
13	Assessment Ratio	18.0%	18.0%
14	Assessment Value (Line 12 * Line 13)	100,635	131,192
15	Composite Property Tax Rate - Obtained from ADOR	16.9547%	16.9547%
16	Test Year Adjusted Property Tax Expense (Line 14 * Line 15)	\$ 17,062	\$ 22,243
17	Tax on Parcels	-	-
18	Total Property Taxes (Line 16 + Line 17)	\$ 17,062	
19	Test Year Property Taxes	\$ 34,283	
20	Adjustment to Test Year Property Taxes (Line 18 - Line 19)	\$ (17,221)	
21			
22	Property Tax on Company Recommended Revenue (Line 16 + Line 17)		\$ 22,243
23	Company Test Year Adjusted Property Tax Expense (Line 18)		\$ 17,062
24	Increase in Property Tax Due to Increase in Revenue Requirement		\$ 5,181
25			
26	Increase in Property Tax Due to Increase in Revenue Requirement (Line 24)		\$ 5,181
27	Increase in Revenue Requirement		\$ 254,643
28	Increase in Property Tax Per Dollar Increase in Revenue (Line 26 / Line 27)		2.03456%
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Adjustment to Revenues and Expenses
Adjustment Number 3

Exhibit
Schedule C-2
Page 4
Witness: Bourassa

Rate Case Expense

Line
No.

1			
2	Estimated Rate Case Expense	\$	130,000
3			
4	Amortization Period (years)		3
5			
6	Annual Amortization	\$	43,333
7			
8	Test Year Rate Case Expense	\$	-
9			
10	Increase (decrease) in Rate Case Expense	\$	43,333
11			
12			
13	Adjustment to Revenue and/or Expense	\$	43,333
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Adjustment to Revenues and Expenses
Adjustment Number 4

Exhibit
Schedule C-2
Page 5
Witness: Bourassa

Revenue Annualization

Line
No.

1
2
3
4
5
6
7
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9
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11
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19
20

Revenue Annualization

\$ (1,470)

Total Revenue from Annualization

\$ (1,470)

Adjustment to Revenue and/or Expense

\$ (1,470)

SUPPORTING SCHEDULES

H-1

Work papers

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Adjustment to Revenues and Expenses
Adjustment Number 5

Exhibit
Schedule C-2
Page 6
Witness: Bourassa

Corporate Cost Adjustment - Non-Labor

Line

No.

1

2

Corporate Allocation Adjustment

3

4

Adjusted Allocated Non-Labor Costs During Test Year

\$ 23,617

5

Allocated Non-Labor Costs During Test Year

\$ 19,735

6

7

Adjustment to Contractual Services Professional

\$ 3,882

8

9

10

Adjustment to Revenue and/or Expense

\$ 3,882

11

12

Reference

13

Testimony

14

Work Papers

15

16

17

18

19

20

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Adjustment to Revenues and Expenses
Adjustment Number 6

Exhibit
Schedule C-2
Page 7
Witness: Bourassa

Corporate Cost Adjustment - Labor

Line

No.

1			
2	<u>Contractual Services - Professional</u>		
3	Test Year Allocated Labor Costs	\$	18,641
4	Factor (1)		6.09%
5	Increase in Labor Costs	\$	1,135
6			
7	Adjustment to Contractual Services - Professional	<u>\$</u>	<u>1,135</u>
8			
9	<u>Contractual Services - Other</u>		
10	Test Year Allocated Labor Costs	\$	-
11	Factor (1)		6.09%
12	Increase in Labor Costs	\$	-
13			
14	Adjustment to Contractual Services - Other	<u>\$</u>	<u>-</u>
15			
16			
17			
18	Adjustment to Revenue and/or Expense	<u>\$</u>	<u>1,135</u>
19			
20	<u>Reference</u>		
21	Testimony		
22	Work papers		
23			
24			
25			

Exhibit
Schedule C-2
Page 8
Witness: Bourassa

Line
No.

17 Weighted Cost of Debt Computation
18 Pro forma Capital Structure

19		<u>Percent</u>	<u>Cost</u>	<u>Cost</u>
20	Debt	30.00%	3.50%	1.05%
21	Equity	70.00%	12.00%	8.40%
22	Total	100.00%		9.45%

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Adjustment to Revenues and/or Expenses
Adjustment Number 8

Exhibit
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Witness: Bourassa

Line

No.

1 Income Taxes

2

3

4 Computed Income Tax

5 Test Year Income tax Expense

6 Adjustment to Income Tax Expense

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13 SUPPORTING SCHEDULE

14 C-3, page 2

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	Test Year at Present Rates
\$	(12,294)
	-
\$	(12,294)

	Test Year at Proposed Rates
\$	62,674
	(12,294)
\$	74,968

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Computation of Gross Revenue Conversion Factor

Exhibit
Schedule C-3
Page 1
Witness: Bourassa

Line No.	Description	Percentage of Incremental Gross Revenues
1	Federal Effective Income Tax Rate	25.152%
2		
3	State Effective Income Tax Rate	4.900%
4		
5	Property Taxes	1.423%
6		
7		
8	Total Tax Percentage	31.475%
9		
10	Operating Income % = 100% - Tax Percentage	68.525%
11		
12		
13		
14		
15	$\frac{1}{\text{Operating Income \%}}$ = Gross Revenue Conversion Factor	
16		1.4593
17		
18		
19		
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26		
27	<u>SUPPORTING SCHEDULES:</u>	<u>RECAP SCHEDULES:</u>
28	C-3, page 2	A-1
29		
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GROSS REVENUE CONVERSION FACTOR

Line No.	Description	(A)	(B)	(C)	(D)	(E)	(F)
<u>Calculation of Gross Revenue Conversion Factor:</u>							
1	Revenue	100.0000%					
2	Uncollectible Factor (Line 11)	0.0000%					
3	Revenues (L1 - L2)	100.0000%					
4	Combined Federal and State Income Tax and Property Tax Rate (Line 23)	31.4747%					
5	Subtotal (L3 - L4)	68.5253%					
6	Revenue Conversion Factor (L1 / L5)	1.459315					
<u>Calculation of Uncollectible Factor:</u>							
7	Unity	100.0000%					
8	Combined Federal and State Tax Rate (L17)	30.0516%					
9	One Minus Combined Income Tax Rate (L7 - L8)	69.9484%					
10	Uncollectible Rate	0.0000%					
11	Uncollectible Factor (L9 * L10)		0.0000%				
<u>Calculation of Effective Tax Rate:</u>							
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%					
13	Arizona State Income Tax Rate	4.9000%					
14	Federal Taxable Income (L12 - L13)	95.1000%					
15	Applicable Federal Income Tax Rate (L55, Col E)	26.4475%					
16	Effective Federal Income Tax Rate (L14 x L15)	25.1516%					
17	Combined Federal and State Income Tax Rate (L13 + L16)		30.0516%				
<u>Calculation of Effective Property Tax Factor:</u>							
18	Unity	100.0000%					
19	Combined Federal and State Income Tax Rate (L17)	30.0516%					
20	One Minus Combined Income Tax Rate (L18-L19)	69.9484%					
21	Property Tax Factor	2.0346%					
22	Effective Property Tax Factor (L20*L21)		1.4231%				
23	Combined Federal and State Income Tax and Property Tax Rate (L17+L22)			31.4747%			
24	Required Operating Income	\$ 149,085					
25	Adjusted Test Year Operating Income (Loss)	\$ (25,409)					
26	Required Increase in Operating Income (L24 - L25)		\$ 174,495				
27	Income Taxes on Recommended Revenue (Col. (E), L52)	\$ 62,674					
28	Income Taxes on Test Year Revenue (Col. (B), L54)	\$ (12,294)					
29	Required Increase in Revenue to Provide for Income Taxes (L27 - L28)		\$ 74,968				
30	Recommended Revenue Requirement	\$ 535,931					
31	Uncollectible Rate (Line 10)	0.0000%					
32	Uncollectible Expense on Recommended Revenue (L24 * L25)	\$ -					
33	Adjusted Test Year Uncollectible Expense	\$ -					
34	Required Increase in Revenue to Provide for Uncollectible Exp.		\$ -				
35	Property Tax with Recommended Revenue	\$ 22,243					
36	Property Tax on Test Year Revenue	\$ 17,062					
37	Increase in Property Tax Due to Increase in Revenue (L35-L36)		\$ 5,181				
38	Total Required Increase in Revenue (L26 + L29 + L37)		\$ 254,643				

	(A)	(B)	(C)	(D)	(E)	(F)
<u>Calculation of Income Tax:</u>						
39	Revenue	\$ 281,288	\$ 281,288	\$ 535,931	\$ 535,931	
40	Operating Expenses Excluding Income Taxes	\$ 318,991	\$ 318,991	\$ 324,172	\$ 324,172	
41	Synchronized Interest (L47)	\$ 22,606	\$ 22,606	\$ 22,606	\$ 22,606	
42	Arizona Taxable Income (L39 - L40 - L41)	\$ (60,309)	\$ (60,309)	\$ 189,154	\$ 189,154	
43	Arizona State Effective Income Tax Rate (see work papers)	4.9000%	4.9000%	4.9000%	4.9000%	
44	Arizona Income Tax (L42 x L43)	\$ (2,955)	\$ (2,955)	\$ 9,269	\$ 9,269	
45	Federal Taxable Income (L42- L44)	\$ (57,354)	\$ (57,354)	\$ 179,886	\$ 179,886	
46						
47	Federal Tax on First Income Bracket (\$1 - \$50,000) @ 15%	\$ (7,500)	\$ (7,500)	\$ 7,500	\$ 7,500	
48	Federal Tax on Second Income Bracket (\$50,001 - \$75,000) @ 25%	\$ (1,838)	\$ (1,838)	\$ 6,250	\$ 6,250	
49	Federal Tax on Third Income Bracket (\$75,001 - \$100,000) @ 34%	\$ -	\$ -	\$ 8,500	\$ 8,500	
50	Federal Tax on Fourth Income Bracket (\$100,001 - \$335,000) @ 39%	\$ -	\$ -	\$ 31,155	\$ 31,155	
51	Federal Tax on Fifth Income Bracket (\$335,001 - \$10,000,000) @ 34%	\$ -	\$ -	\$ -	\$ -	
52						
53	Total Federal Income Tax	\$ (9,338)	\$ (9,338)	\$ 53,405	\$ 53,405	
54	Combined Federal and State Income Tax (L35 + L42)	\$ (12,294)	\$ (12,294)	\$ 62,674	\$ 62,674	
55	COMBINED Applicable Federal Income Tax Rate [Col. (D), L53 - Col. (A), L53] / [Col. (D), L45 - Col. (A), L45]			26.4475%		
56	WASTEWATER Applicable Federal Income Tax Rate [Col. (E), L53 - Col. (B), L53] / [Col. (E), L45 - Col. (B), L45]				26.4475%	
57	WATER Applicable Federal Income Tax Rate [Col. (F), L53 - Col. (C), L53] / [Col. (F), L45 - Col. (C), L45]					0.0000%

Calculation of Interest Synchronization:

58	Rate Base	\$ 2,154,980
59	Weighted Average Cost of Debt	1.0490%
60	Synchronized Interest (L45 X L46)	\$ 22,606

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Comparative Balance Sheets

Exhibit
Schedule E-1
Page 1
Witness: Bourassa

Line No.		Test Year Ended 10/31/2015	Year Ended 10/31/2014	Year Ended 12/31/2013
1	ASSETS			
2	Plant In Service	\$ 4,283,004	\$ 4,182,845	\$ 4,159,114
3	Non-Utility Plant	-	-	-
4	Construction Work in Progress	19,639	21,124	(767)
5	Property Held for Future Use	-	-	-
6	Accumulated Depreciation	(1,515,859)	(1,336,237)	(1,175,762)
7	Net Plant	<u>\$ 2,786,784</u>	<u>\$ 2,867,732</u>	<u>\$ 2,982,585</u>
8				
9	CURRENT ASSETS			
10	Cash and Equivalents	\$ 30,310	\$ 7,772	\$ 254,389
11	Restricted Cash	-	-	-
12	Net Accounts Receivable	51,321	31,690	30,320
13	Inter-Company Receivable	-	-	-
14	Notes Receivable	-	-	-
15	Materials and Supplies	-	-	-
16	Prepayments	16,048	18,079	19,694
17	Other Current Assets	-	23,469	23,469
18	Total Current Assets	<u>\$ 97,680</u>	<u>\$ 81,011</u>	<u>\$ 327,872</u>
19				
20	OTHER ASSETS			
21	Deferred Finance Costs	\$ -	\$ -	\$ -
22	Other Deferred Debits	-	-	-
23	Other Non-Current Assets	-	-	-
24	Deferred Debits	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
25				
26	TOTAL ASSETS	<u>\$ 2,884,464</u>	<u>\$ 2,948,743</u>	<u>\$ 3,310,457</u>
27				
28				
29	LIABILITIES AND STOCKHOLDER EQUITY			
30				
31	Stockholder's Equity	<u>\$ 2,876,195</u>	<u>\$ 3,249,618</u>	<u>\$ 3,277,127</u>
32				
33	Long-Term Debt	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
34				
35	CURRENT LIABILITIES			
36	Accounts Payable	\$ -	\$ -	\$ -
37	Current Portion of Long-Term Debt	-	-	-
38	Payables to Associated Companies	(18,800)	(316,321)	13,631
39	Security Deposits	2,360	1,810	1,110
40	Customer Meter Deposits, Current	-	-	-
41	Current Portion of AIAC	-	-	-
42	Accrued Taxes	12,250	(3,908)	10,000
43	Accrued Interest	-	-	-
44	Other Current Liabilities	7,458	12,544	3,589
45	Total Current Liabilities	<u>\$ 3,268</u>	<u>\$ (305,875)</u>	<u>\$ 28,330</u>
46	DEFERRED CREDITS			
47	Customer Meter Deposits, less current	\$ -	\$ -	\$ -
48	Advances in Aid of Construction (in Progress)	5,000	5,000	5,000
49	Advances in Aid of Construction	-	-	-
50	Accumulated Deferred Investment Tax Credits	-	-	-
51	Accumulated Deferred Income Taxes	-	-	-
52	Contributions In Aid of Construction	-	-	-
53	Accumulated Amortization	-	-	-
54	Other Deferred Credits	-	-	-
55	Total Deferred Credits	<u>\$ 5,000</u>	<u>\$ 5,000</u>	<u>\$ 5,000</u>
56				
57	Total Liabilities & Common Equity	<u>\$ 2,884,464</u>	<u>\$ 2,948,743</u>	<u>\$ 3,310,457</u>

61 SUPPORTING SCHEDULES:

RECAP SCHEDULES
A-3

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Comparative Income Statements

Exhibit
Schedule E-2
Page 1
Witness: Bourassa

Line No.		Test Year Ended 10/31/2015	Prior Year Ended 10/31/2014	Prior Year Ended 12/31/2013
1	Revenues			
2	Flat Rate Revenue	\$ 281,183	\$ 280,845	\$ 283,304
3	Reclaimed Water Revenues	-	-	-
4	Other Wastewater Revenue	1,575	1,692	1,790
5	Total Revenues	<u>\$ 282,758</u>	<u>\$ 282,537</u>	<u>\$ 285,094</u>
6	Operating Expenses			
7	Salaries and Wages	\$ -	\$ -	\$ -
8	Purchased Water	2,379	2,453	2,270
9	Sludge Removal	2,204	917	6,910
10	Purchased Power	16,374	25,219	26,467
11	Fuel for Power Production	-	-	-
12	Chemicals	770	-	1,347
13	Materials and Supplies	3,171	1,779	1,711
14	Contractual Services - Professional	40,990	39,576	50,903
15	Contractual Services - Testing	11,872	18,646	11,332
16	Contractual Services - Other	12,995	13,540	54,942
17	Office Supplies and Expense	-	-	-
18	Rents	-	-	-
19	Transportation	100	104	430
20	Insurance	6,288	7,323	15,628
21	Regulatory Commission Expense	-	-	-
22	Miscellaneous	21,362	15,830	14,034
23	Depreciation and Amortization	168,567	166,103	175,969
24	Taxes Other Than Income	-	-	-
25	Property Taxes	34,283	18,484	13,845
26	Income Taxes	-	-	-
27				
28	Total Operating Expenses	<u>\$ 321,354</u>	<u>\$ 309,974</u>	<u>\$ 375,787</u>
29	Operating Income	<u>\$ (38,596)</u>	<u>\$ (27,437)</u>	<u>\$ (90,692)</u>
30	Other Income (Expense)			
31	Interest and Dividend Income	-	-	105
32	AFUDC Income	-	-	-
33	Miscellaneous Non-Utility Expenses	-	-	-
34	Interest Expense	(94)	(72)	(64)
35				
36	Total Other Income (Expense)	<u>\$ (94)</u>	<u>\$ (72)</u>	<u>\$ 42</u>
37	Net Profit (Loss)	<u><u>\$ (38,690)</u></u>	<u><u>\$ (27,509)</u></u>	<u><u>\$ (90,651)</u></u>

SUPPORTING SCHEDULES:

RECAP SCHEDULES:

A-2

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Comparative Statements of Cash Flows

Exhibit
Schedule E-3
Page 1
Witness: Bourassa

Line No.		Test Year Ended 10/31/2015	Prior Year Ended 10/31/2014	Prior Year Ended 12/31/2013
1				
2				
3	Cash Flows from Operating Activities			
4	Net Income	\$ (38,690)	\$ (27,509)	\$ (90,651)
5	Adjustments to reconcile net income to net cash			
6	provided by operating activities:			
7	Depreciation and Amortization	168,567	166,103	175,969
8	Depreciation and Amortization Adjustments	11,057	(5,628)	(11,876)
9	Changes in Certain Assets and Liabilities:			
10	Accounts Receivable	(19,631)	(1,370)	5,888
11	Restricted Cash			
12	Materials and Supplies Inventory			
13	Prepaid Expenses	2,031	1,615	16,337
14	Deferred Charges			
15	Receivables/Payables to Associated Co.	297,521	(329,952)	1,328
16	Accounts Payable			
17	Interest Payable			
18	Customer Meter and Security Deposits	550	700	270
19	Taxes Payable	16,158	(13,908)	2,131
20	Other assets and liabilities	18,383	8,955	(11,573)
21	Rounding	(1)	-	(1)
22	Net Cash Flow provided by Operating Activities	<u>\$ 455,944</u>	<u>\$ (200,994)</u>	<u>\$ 87,822</u>
23	Cash Flow From Investing Activities:			
24	Capital Expenditures	(98,674)	(45,622)	(6,543)
25	Plant Held for Future Use			
26	Changes in Special Funds			
27	Net Cash Flows from Investing Activities	<u>\$ (98,674)</u>	<u>\$ (45,622)</u>	<u>\$ (6,543)</u>
28	Cash Flow From Financing Activities			
29	Change in Restricted Cash			
30	Proceeds from Long-Term Debt			
31	Net receipt of contributions in aid of construction			
32	Net receipts of advances in aid of construction			
33	Repayments of Long-Term Debt			
34	Distributions	(334,733)		
35	Deferred Financing Costs			
36	Paid in Capital			5,001
37	Net Cash Flows Provided by Financing Activities	<u>\$ (334,733)</u>	<u>\$ -</u>	<u>\$ 5,001</u>
38	Increase(decrease) in Cash and Cash Equivalents	22,537	(246,616)	86,280
39	Cash and Cash Equivalents at Beginning of Year	7,773	254,389	168,109
40	Cash and Cash Equivalents at End of Year	<u>\$ 30,310</u>	<u>\$ 7,773</u>	<u>\$ 254,389</u>

43 SUPPORTING SCHEDULES:
44 Workpapers
45

RECAP SCHEDULES:
A-5

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Statement of Changes in Stockholder's Equity

Exhibit
Schedule E-4
Page 1
Witness: Bourassa

Line

No.

	Stockholder's	Retained	
	Equity	Earnings	Total
1			
2			
3			
4	Balance, December 31, 2011	\$ 3,362,778	\$ -
5	Addnl Paid In Capital Adjustment	5,001	5,001
6	Distributions		-
7	Rounding		-
8	Net Income	(90,651)	(90,651)
9			
10	Balance, December 31, 2012	\$ 3,367,779	\$ (90,651)
11	Addnl Paid In Capital Adjustment	-	-
12	Distributions		-
13	Rounding		-
14	Net Income	(27,509)	(27,509)
15			
16	Balance, December 31, 2013	\$ 3,367,779	\$ (118,160)
17	Addnl Paid In Capital Adjustment	-	-
18	Distributions		-
19	Rounding		-
20	Net Income	(38,690)	(38,690)
21			
22	Balance, December, 2014	\$ 3,367,779	\$ (156,850)
23			
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SUPPORTING SCHEDULES:

RECAP SCHEDULES:
E-1

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Detail of Plant in Service

Exhibit
Schedule E-5
Page 1
Witness: Bourassa

Line No.	Acct. No.	Plant Description	Plant Balance at 10/31/2014	Plant Additions, Reclassifications or Retirements	Plant Balance at 10/31/2015
1					
2	351	Organization	\$ 37,898	\$ -	\$ 37,898
3	352	Franchise	808	(54)	754
4	353	Land	400,000	-	400,000
5	354	Structures & Improvements	553,774	23,014	576,788
6	355	Power Generation	71,070	53,846	124,916
7	360	Collection Sewer Forced	7,141	-	7,141
8	361	Collection Sewers Gravity	483,631	(2,814)	480,817
9	362	Special Collecting Structures	-	-	-
10	363	Customer Services	122,760	-	122,760
11	364	Flow Measuring Devices	3,845	-	3,845
12	365	Flow Measuring Installations	2,457	-	2,457
13	366	Reuse Services	-	-	-
14	367	Reuse Meters And Installation	-	-	-
15	370	Receiving Wells	26,226	-	26,226
16	371	Pumping Equipment	163,336	5,129	168,465
17	374	Reuse Distribution Reservoirs	-	-	-
18	375	Reuse Trans. and Dist. System	126,541	-	126,541
19	380	Treatment & Disposal Equipment	2,138,581	7,103	2,145,684
20	381	Plant Sewers	27,752	-	27,752
21	382	Outfall Sewer Lines	5,541	-	5,541
22	389	Other Sewer Plant & Equipment	-	-	-
23	390	Office Furniture & Equipment	-	13,935	13,935
24	390.1	Computers and Software	-	-	-
25	391	Transportation Equipment	-	-	-
26	392	Stores Equipment	-	-	-
27	393	Tools, Shop And Garage Equip	5,463	-	5,463
28	394	Laboratory Equip	6,021	-	6,021
29	395	Power Operated Equip	-	-	-
30	396	Communication Equip	-	-	-
31	397	Miscellaneous Equip.	-	-	-
32	398	Other Tangible Plant	-	-	-
33					
34					
35					
36					
37					
38		TOTAL WATER PLANT	\$ 4,182,845	\$ 100,159	\$ 4,283,004

SUPPORTING SCHEDULES

41 Workpapers

RECAP SCHEDULES:

A-4

E-1

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Operating Statistics

Exhibit
Schedule E-7
Page 1
Witness: Bourassa

Line No.		Test Year Ended <u>10/31/2015</u>	Prior Year Ended <u>10/31/2014</u>	Prior Year Ended <u>12/31/2013</u>
1	<u>WASTEWATER STATISTICS:</u>			
2				
3				
4				
5	Total Gallons Treated (in Thousands)	12,226	11,883	11,657
6				
7				
8				
9	Wastewater Revenues from Customers: ¹	\$ 282,758	\$ 282,537	\$ 285,094
10				
11				
12				
13				
14	Year End Number of Customers	336	337	337
15				
16				
17	Annual Gallons (in Thousands)			
18	Treated Per Year End Customer	36	35	35
19				
20				
21				
22	Annual Revenue per Year End Customer	\$ 841.54	\$ 838.39	\$ 845.98
23				
24	Pumping Cost Per 1,000 Gallons	\$ 1.3393	\$ 2.1222	\$ 2.2706
25	Purchased Water Cost per 1,000 Gallons	\$ 0.1946	\$ 0.2064	\$ 0.1947
26				
27	¹ Effective customer. An effective customer considers the number of units served for multi-unit customers.			
28				

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Taxes Charged to Operations

Exhibit
Schedule E-8
Page 1
Witness: Bourassa

Line No.		Test Year Ended 10/31/2015	Prior Year Ended 10/31/2014	Prior Year Ended 12/31/2013
1	Description			
2				
3	State Income Taxes	\$ -	\$ -	\$ -
4	Federal Income Taxes	-	-	-
5	Payroll Taxes	-	-	-
6	Property Taxes	34,283	18,484	13,845
7				
8	Totals	<u>\$ 34,283</u>	<u>\$ 18,484</u>	<u>\$ 13,845</u>
9				
10				
11				
12				
13				
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Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Notes To Financial Statements

Exhibit
Schedule E-9
Page 1
Witness: Bourassa

Line
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The Company does not conduct independent audits, reviews and/or compilations. Accordingly, there are no notes which are typically associated with these financial statements. Management makes the following notations to the financial statements contained herein:

Significant Accounting Policies - The Company prepares its financial statements in accordance with accounting principles generally accepted in the United States of America and the accounting records of the are maintained in accordance with the uniform system of accounts as prescribed by the National Association of Regulatory Utility Commissioners (USOA 1996). Significant accounting policies are as follows:

Utility Plant - Property, plant and equipment is stated at cost less accumulated depreciation provided on a straight-line basis.

Depreciation rates for asset classes of utility property, plant and equipment are established by the Commission. The cost of additions, including betterments and replacements of units of utility fixed assets are charged to utility property, plant and equipment. When units of utility property are replaced, renewed or retired, their cost plus removal or disposal costs, less salvage proceeds, is charged to accumulated depreciation.

Revenue Recognition - Revenues are recognized on the accrual method. Under this method, revenue is recognized when earned rather than when collected, and expenses are recognized when incurred rather than when paid.

Contributions in Aid of Construction - Contributions in aid of construction (CIAC) are nonrefundable contributions by developers and customers for plant expansion. In addition, this amount includes the remaining balance, if any, of advances in aid of construction at the end of the repayment period. The contributions in aid of construction are being amortized at a rate equal to the rate allowed for depreciation, as a reduction of depreciation expense

Advances in Aid of Construction - Customer advances for construction are subject to refund in accordance with agreements approved by the Arizona Corporation Commission. Agreements provide for refunds which are typically equal to 10 percent of annual water revenue generated from the expansion. The repayments are for a maximum agreed upon period or until repaid in full. Any balance remaining at the end of the agreed-upon period for repayment becomes a contribution in aid of construction.

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Projected Income Statements - Present & Proposed Rates

Exhibit
Schedule F-1
Page 1
Witness: Bourassa

Line No.		Test Year Actual Results	At Present Rates Year Ended 12/31/2016	At Proposed Rates Year Ended 12/31/2016
1	Revenues			
2	Metered Water Revenues	\$ 281,183	\$ 279,713	\$ 534,356
3	Unmetered Water Revenues	-	-	-
4	Other Water Revenues	1,575	1,575	1,575
5		<u>\$ 282,758</u>	<u>\$ 281,288</u>	<u>\$ 535,931</u>
6	Operating Expenses			
7	Salaries and Wages	\$ -	\$ -	\$ -
8	Purchased WasteWater Treatment	2,379	2,379	2,379
9	Sludge Removal	2,204	2,204	2,204
10	Purchased Power	16,374	16,374	16,374
11	Fuel for Power Production	-	-	-
12	Chemicals	770	770	770
13	Materials and Supplies	3,171	3,171	3,171
14	Contractual Services - Professional	40,990	46,007	46,007
15	Contractual Services - Testing	11,872	11,872	11,872
16	Contractual Services - Other	12,995	12,995	12,995
17	Office Supplies and Expense	-	-	-
18	Rents	-	-	-
19	Transportation	100	100	100
20	Insurance	6,288	6,288	6,288
21	Regulatory Commission	-	43,333	43,333
22	Scottsdale Capacity (Operating Lease)	21,362	21,362	21,362
23	Miscellaneous	168,567	135,073	135,073
24	Depreciation and Amortization	-	-	-
25	Taxes Other Than Income	34,283	17,062	22,243
26	Property Taxes	-	(12,294)	62,674
27	Income Taxes	321,354	306,697	386,846
28	Total Operating Expenses	<u>\$ 642,707</u>	<u>\$ 613,394</u>	<u>\$ 773,691</u>
29	Operating Income	<u>\$ (359,950)</u>	<u>\$ (332,107)</u>	<u>\$ (237,760)</u>
30	Other Income (Expense)			
31	Interest Income	-	-	-
32	Other income	-	-	-
33	Interest Expense	-	-	-
34	Other Expense	(94)	(22,606)	(22,606)
35	Gain/Loss Sale of Fixed Assets	-	-	-
36	Total Other Income (Expense)	<u>\$ (94)</u>	<u>\$ (22,606)</u>	<u>\$ (22,606)</u>
37	Net Profit (Loss)	<u><u>\$ (360,044)</u></u>	<u><u>\$ (354,712)</u></u>	<u><u>\$ (260,366)</u></u>

SUPPORTING SCHEDULES:

C-1

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Projected Statements of Changes in Financial Position
Present and Proposed Rates

Exhibit
Schedule F-2
Page 1
Witness: Bourassa

Line No.		Test Year Ended 10/31/2015	At Present Rates Year Ended 12/31/2016	At Proposed Rates Year Ended 12/31/2016
5	Cash Flows from Operating Activities			
6	Net Income	\$ (38,690)	\$ (48,015)	\$ 126,479
7	Adjustments to reconcile net income to net cash			
8	provided by operating activities:			
9	Depreciation and Amortization	168,567	135,073	135,073
10	Depreciation Adjustments	11,057		
11	Changes in Certain Assets and Liabilities:			
12	Accounts Receivable	(19,631)		
13	Unbilled Revenues	-		
14	Materials and Supplies Inventory	-		
15	Prepaid Expenses	2,031		
16	Deferred Charges	-		
17	Receivables/Payables to Associated Co.	297,521		
18	Accounts Payable	-		
19	Intercompany payable	-		
20	Customer Meter Deposits	550		
21	Taxes Payable	16,158		
22	Other assets and liabilities	18,383		
	Rounding	(1)		
23	Net Cash Flow provided by Operating Activities	\$ 455,945	\$ 87,058	\$ 261,553
24	Cash Flow From Investing Activities:			
25	Capital Expenditures	(98,674)	(31,396)	(31,396)
26	Plant Held for Future Use	-		
27	Changes in debt reserve fund	-		
28	Net Cash Flows from Investing Activities	\$ (98,674)	\$ (31,396)	\$ (31,396)
29	Cash Flow From Financing Activities			
30	Change in Restricted Cash	-	-	-
31	Change in net amounts due to parent and affiliates	-	-	-
32	Net Receipt contributions in aid of construction	-	-	-
33	Net receipts of advances in aid of construction	-	-	-
34	Repayments of Long-Term Debt	-	-	-
35	Dividends Paid	(334,733)	(111,578)	(111,578)
36	Deferred Financing Costs	-	-	-
37	Paid in Capital	-	1,667	1,667
38	Net Cash Flows Provided by Financing Activities	\$ (334,733)	\$ (109,911)	\$ (109,911)
39	Increase(decrease) in Cash and Cash Equivalents	22,538	(54,248)	120,247
40	Cash and Cash Equivalents at Beginning of Year	7,773	30,311	30,311
41	Cash and Cash Equivalents at End of Year	\$ 30,311	\$ (23,937)	\$ 150,558

SUPPORTING SCHEDULES:

E-3

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Projected Construction Requirements

Exhibit
Schedule F-3
Page 1
Witness: Bourassa

Line
No.

Account					
Number Plant Asset:		Test Year	2015	2016	2017
351	Organization	\$ -	\$ -	\$ -	\$ -
352	Franchise	(54)	-	-	-
353	Land	-	-	-	-
354	Structures & Improvements	23,014	11,541	6,000	6,000
355	Power Generation	53,846	-	-	-
360	Collection Sewer Forced	-	-	-	-
361	Collection Sewers Gravity	(2,814)	375	500	500
362	Special Collecting Structures	-	-	-	-
363	Customer Services	-	3,000	2,000	2,000
364	Flow Measuring Devices	-	5,000	-	-
366	Reuse Services	-	-	-	-
367	Reuse Meters And Installation	-	-	-	-
370	Receiving Wells	-	-	-	-
371	Pumping Equipment	5,129	-	-	-
374	Reuse Distribution Reservoirs	-	-	-	-
375	Reuse Trans. and Dist. System	-	-	-	-
380	Treatment & Disposal Equipment	7,103	6,000	8,000	6,000
381	Plant Sewers	-	-	-	-
382	Outfall Sewer Lines	-	-	-	-
389	Other Sewer Plant & Equipment	-	-	-	-
390	Office Furniture & Equipment	13,935	-	-	-
390.1	Computers and Software	-	-	-	-
391	Transportation Equipment	-	-	-	-
392	Stores Equipment	-	-	-	-
393	Tools, Shop And Garage Equip	-	5,180	240	240
394	Laboratory Equip	-	300	400	400
396	Communication Equip	-	-	-	-
397	Miscellaneous Equipment	-	-	-	-
398	Other Tangible Plant	-	-	-	-
Total		\$ 100,159	\$ 31,396	\$ 17,140	\$ 15,140

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Assumptions Used in Rate Filing

Exhibit
Schedule F-4
Page 1
Witness: Bourassa

Line

No.

1 Property Taxes were computed using the method used by the Arizona Department
2 of Revenue modified for ratemaking.
3
4 Projected construction expenditures are shown on Schedule A-4.
5
6 Expense adjustments are shown on Schedule C2, and are explained in the testimony.
7
8 Income taxes were computed using statutory state and federal income tax rates.
9
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Liberty Utilities (Entrada Del Oro Sewer) Corp.
Revenue Summary
 With Annualized Revenues to Year End Number of Customers
 And Estimated Customer Growth
 Test Year Ended October 31, 2015

Exhibit
 Schedule H-1
 Witness: Bourassa

Line No.	Customer Classification	Present Revenues	Proposed Revenues	Dollar Change	Percent Change	Percent of Present Sewer Revenues	Percent of Proposed Sewer Revenues
1	Residential	\$ 281,190	\$ 537,213	\$ 256,023	91.05%	100.53%	100.53%
2							
3							
4							
5							
6	Subtotal Revenues	\$ 281,190	\$ 537,213	\$ 256,023	91.05%	100.53%	100.53%
7							
8	Residential customer revenue						
9	annualized to end of year, based on						
10	year end number of customers						
11	Residential	(1,470)	(2,808)	(1,338)	91.05%	-0.53%	-0.53%
12							
13							
14							
15	Subtotal Annualization	\$ (1,470)	\$ (2,808)	\$ (1,338)	91.05%	-0.53%	-0.53%
16							
17	Subtotal Revenues (including annualization)	279,720	534,405	254,685	91.05%	100.00%	100.00%
18	Misc Revenues	1,575	1,575	0	0.00%	0.00%	0.00%
19	Reconciliation amount to C-1	(7)	(49)	(42)	600.00%	0.00%	0.00%
20	Totals	\$ 281,288	\$ 535,931	\$ 254,643	90.53%	100.00%	100.00%
21							
22							
23							
24							
25							
26							
27							
28							
29							
30	<u>Reconciliation to Recorded Revenues</u>						
31							
32	Sewer Service Revenues Per GL	\$ 281,183					
33	Add:						
34	Less:						
35							
36	Net GL	\$ 281,183					
37	Per Bill Count (w/out annualization) (line 6)	281,190					
38	Difference	(7)					
39	Percent	-0.002%					
40							
41							

Liberty Utilities (Entrada Del Oro Sewer) Corp.
 Test Year Ended October 31, 2015
 Analysis of Revenue by Detailed Class

Schedule H-2
 Page 1
 Witness: Bourassa

Line No.	Customer Classification	Average Number of Customers at 12/31/2014	Average Usage	Average Bill Present Rates	Proposed Rates	Proposed Increase Dollar Amount	Percent Amount
1	Residential	333	N/A	\$ 70.00	\$ 133.74	\$ 63.74	91.05%
2							
3							
4							
5							
6							
7	Total	333					
8							
9							
10							
11							

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Present and Proposed Rates
Test Year Ended October 31, 2015

Exhibit
Schedule H-3
Page 1
Witness: Bourassa

Line No.	Customer Classification	Present Rates	Proposed Rates	Percent Change
1				
2	Monthly Charge for:			
3	Residential	\$ 70.00	\$ 133.74	91.05% [1]
4	School, per Student	5.600	10.699	91.05%
5	Commercial	NT	140.00	NMF
6				
7	Commercial, per 1,000 gals[2]	NT	6.00	NMF
8				
9				
10				
11	Effluent	NT	Market Price	per acre foot per 1,000 gallons
12				
13	[1] Proposed Phase-in			
14				
15	Residential Monthly Charge	Year 1	Year 2	Year 3
16	Foregone Revenues Surcharge	\$ 114.61	\$ 133.74	133.74
17	Total	\$ 114.61	\$ 133.74	\$ 155.48
				\$ 133.74

[2] Base dupon actual water usage provided by Arizona Water Company.
If water usage data cannot be obtained, then the Company proposes the following flat rate design based upon meter size:

Meter Size:	Proposed Monthly Charge
1 Inch and smaller	\$ 140.00
1 1/2 Inch	\$ 280.00
2 Inch	\$ 448.00
3 Inch	\$ 896.00
4 Inch	\$ 1,400.00
6 Inch	\$ 2,800.00
8 Inch	\$ 4,480.00
10 Inch	\$ 6,440.00

NT = No Tariff

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Present and Proposed Rates
Test Year Ended October 31, 2015

Exhibit
Schedule H-3
Page 2
Witness: Bourassa

Line No.	Other Service Charges	Present Rates	Proposed Rates
1	Establishment	\$ 30.00	\$ 25.00
2	Establishment (After Hours)	\$ 60.00	NT
3	Reconnection (Delinquent)	\$ 60.00	(a)
4	Reestablishment (within 12 months)	*	*
5	Deposit	**	**
6	Deposit Interest	**	6.00%
7	NSF Check	\$ 25.00	\$ 25.00
8	Late Payment Penalty	1.5% per month	Greater of \$5.00 or 1.5% per month on unpaid balance
9	Deferred Payment	1.5% per month	1.5% per month
10	Service Charge - after hours(b)	NT	\$ 50.00
11	Main Extension/ Additional Facilities	Cost	Cost
12	Revenues Taxes and Assessments	***	***

* Per Commission Rule A.A.C. R-14-2-603(D) - Months off system times the minimum charge.

** Per Commission Rule A.A.C. R-14-2-603(B). Residential - two times the average bill. Non-residential two and one-half times the average bill.

*** Per Commission Rule A.A.C. R14-2-608(D)

(a) Customer shall pay the actual cost of physical disconnection and Establishment Fee (if same customer) and there shall be no charge for disconnection if no physical work is performed.

(b) The after-hours service charge shall apply to any service requested by Customer that is performed by Company after regular business hours and shall be in addition to the regular business hours service charge.

IN ADDITION TO THE COLLECTION OF REGULAR RATES, THE UTILITY WILL COLLECT FROM ITS CUSTOMERS A PROPORTIONATE SHARE OF ANY PRIVILEGE, SALES, USE, AND FRANCHISE TAX. PER COMMISSION RULE 14-2-608D(5).

ALL MAIN EXTENSIONS (ADVANCES AND/OR CONTRIBUTIONS) ARE TO INCLUDE LABOR, MATERIALS, OVERHEADS AND ALL APPLICABLE TAXES, INCLUDING ALL GROSS-UP TAXES FOR INCOME TAXES.

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Bill Comparison
Customer Classification
Residential

Exhibit
Schedule H-4
Page 1
Witness: Bourassa

Present	Proposed	Dollar	Percent
<u>Bill</u>	<u>Bill</u>	<u>Increase</u>	<u>Increase</u>
\$ 70.00	\$ 133.74	\$ 63.74	91.05%

Present Rates:

Monthly Charge: \$ 70.00

Proposed Rates:

Monthly Charge: \$ 133.74

Residential

Exhibit
Schedule H-5
Page 1
Witness: Bour

[illegible]

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7

8 **BEFORE THE ARIZONA CORPORATION COMMISSION**
9

10 IN THE MATTER OF THE APPLICATION
11 OF LIBERTY UTILITIES (ENTRADA DEL
ORO SEWER) CORP., AN ARIZONA
12 CORPORATION, FOR A
13 DETERMINATION OF THE FAIR VALUE
14 OF ITS UTILITY PLANTS AND
PROPERTY AND FOR INCREASES IN ITS
15 WASTEWATER RATES AND CHARGES
FOR UTILITY SERVICE BASED
THEREON.

DOCKET NO: SW-04316A-15-_____

16
17
18 **DIRECT TESTIMONY OF**
19 **THOMAS J. BOURASSA**

20
21 **COST OF CAPITAL**

22
23 **March 3, 2016**
24
25
26

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1 **I. INTRODUCTION.**

2 **Q. PLEASE STATE YOUR NAME AND ADDRESS.**

3 A. My name is Thomas J. Bourassa. My business address is 139 W. Wood Drive,
4 Phoenix, Arizona 85029.

5 **Q. ARE YOU THE SAME THOMAS J. BOURASSA THAT FILED DIRECT**
6 **TESTIMONY ON RATE BASE, INCOME STATEMENT, REVENUE**
7 **REQUIREMENT AND RATE DESIGN FOR LIBERTY UTILITIES**
8 **(ENTRADA DEL ORO SEWER) CORP.?**

9 A. Yes. I have prepared direct testimony on rate base, income statement, revenue
10 requirement and rate design, along with the A-F and H schedules, for Liberty
11 Utilities (Entrada Del Oro Sewer) Corp. ("Liberty EDO"). Testimony regarding
12 my background and qualifications is contained in that volume of my direct
13 testimony. In this portion, I address the cost of capital for Liberty EDO.

14 **II. SUMMARY OF TESTIMONY AND THE PROPOSED COST OF CAPITAL.**

15 **Q. WHAT IS THE PURPOSE OF THIS PORTION OF YOUR DIRECT**
16 **TESTIMONY?**

17 A. I will testify in support of the proposed rates of return for Liberty EDO. I am
18 sponsoring the D Schedules, which are attached to this testimony, along with
19 **Exhibits TJB-COC-DT1, TJB-COC-DT2, and TJB-COC-DT3** discussed
20 herein.

21 **Q. PLEASE SUMMARIZE YOUR COST OF CAPITAL TESTIMONY.**

22 A. I have determined that the cost of equity for the publicly traded water utilities falls
23 in the range of 9.7 percent to 10.3 percent with an average of 10.0 percent. After
24 considering the differences in business and financial risk between Liberty EDO and
25 the publicly traded water utilities, I have found that the cost of equity for Liberty
26 EDO in the range of 11.7 percent to 12.3 percent with a mid-point of 12.0 percent.

1 **Q. OKAY, THANK YOU MR. BOURASSA. WHAT IS LIBERTY EDO'S**
2 **CAPITAL STRUCTURE?**

3 A. The actual capital structure for Liberty EDO at the end of the test year (October 31,
4 2015) was 100 percent equity. However, Liberty EDO is requesting approval of
5 long-term debt concurrently with this rate application, which will bring the debt-to-
6 equity ratio for both companies to 30 percent debt and 70 percent equity.
7 Therefore, I am assuming a capital structure consisting of 30 percent debt and 70
8 percent equity for Liberty EDO for purposes of my analysis and recommendations.

9 **Q. WHAT COST OF DEBT DID YOU UTILIZE?**

10 A. I used a cost of debt equal to 3.50 percent. The cost of debt is based upon the
11 recent three-month average 10-year treasury rate¹ of 2.20 percent plus 130 basis
12 points.²

13 **Q. WHAT ABOUT THE WEIGHTED AVERAGE COSTS OF CAPITAL?**

14 A. Liberty EDO's weighted cost of capital is 9.45 percent.³

15 **Q. PLEASE SUMMARIZE THE APPROACH YOU USED TO ESTIMATE**
16 **THE COST OF EQUITY.**

17 A. The cost of equity for Liberty EDO cannot be estimated directly because the equity
18 is not in the form of a publicly traded security and there is no market data.
19 Consequently, I applied market based models (Discounted Cash Flow ("DCF"),
20 Risk Premium Model ("RPM"), and Capital Asset Pricing Model ("CAPM")) using
21 data from a sample of water utilities selected from the *Value Line* Investment
22 Survey, and then determined the difference in risk between Liberty EDO and the
23

24 ¹ Average of November 2014, December 2014, and January 2015 10-year U.S. Treasury
monthly average yield.

25 ² Terms of debt are 3 month average of 10-year U.S. Treasury yield plus 130 basis points.

26 ³ Schedule D-1.

1 publicly traded water utilities. There are seven publicly traded water utilities in my
2 sample: American States Water, Aqua America, California Water, Connecticut
3 Water, Middlesex Water, SJW Corp., and York Water Company. As explained
4 later in my testimony, these companies aren't really comparable to Liberty EDO,
5 but the publicly traded utilities are utilities with available market data, and they are
6 the same proxies the Commission's Utilities Division Staff has relied on for data
7 on water utilities in a number of recent water and sewer utility rate cases.

8 Consistent with my past practice, and the Commission's past practices in
9 prior rate cases, my specification of the DCF model is based on historical growth
10 and analysts' growth projections, current indicated annual dividends, and actual
11 stock price information. Similarly, my CAPM approach is specified with actual
12 and projected market data with respect to Treasury yields, Beta estimates from
13 *Value Line*,⁴ market risk premia data from *Duff & Phelps*⁵ and *Value Line*.
14 My RPM approach is based upon comparing historical total market returns
15 obtained from *Value Line* with historical Treasury yields.

16 In assessing the results of my DCF, CAPM, and RPM analyses, I considered
17 several specific risk trends, including the effect of a potential rise in interest rates.
18 In my view, this approach appropriately balances practical concerns regarding
19 certain underlying assumptions associated with each methodology or approach
20 used to determine a cost of equity.

21 **Q. DID YOU CONSIDER OTHER FACTORS, IN ADDITION TO THE**
22 **ANALYSES DESCRIBED ABOVE, IN ORDER TO DETERMINE THE**
23 **APPROPRIATE ROE?**

24 _____
25 ⁴ *Value Line* Investment Analyzer.

26 ⁵ Duff & Phelps, LLC. *2015 Valuation Handbook; Guide to Cost of Capital*. Hoboken, NJ: John Wiley and Sons, 2015 ("*Duff & Phelps*").

1 A. Yes, in addition to the three distinct analyses discussed above, I considered the
2 following: (1) the economic conditions expected to prevail during the period in
3 which new rates will be in effect; (2) the financial risks associated with the
4 proposed pro forma capital structures; (3) the incremental business risks associated
5 with the small size; and (4) an assessment of the business risks associated relative
6 to the large publicly traded utilities. I considered explicit adjustments to my ROE
7 estimates for these factors and I did take them into consideration when determining
8 where, within a reasonable range of analytical results from the DCF, CAPM and
9 RPM methods, the required ROE rightly falls. As explained earlier, I also
10 considered the unique Arizona regulatory environment and the inherent limitations
11 faced by utilities operating in this state.

12 **Q. HAVE YOU DEVELOPED A RECOMMENDATION FOR THE RATE OF**
13 **RETURN THAT SHOULD BE APPLIED TO LIBERTY EDO'S FAIR**
14 **VALUE RATE BASE?**

15 A. Yes. I recommend a fair value rate of return ("FVROR") of 6.92 percent.

16 **Q. BRIEFLY SUMMARIZE THE APPROACH YOU USED TO DETERMINE**
17 **THE FVROR.**

18 A. I have estimated the FVROR that should be applied to the fair value rate base
19 ("FVRB") using the methodology the Commission has approved in other recent
20 rate cases. In those instances, the Commission determined the FVROR by
21 applying the market return on equity and the cost of debt to the utility's original
22 cost rate base ("OCRB") based on the percent of equity and debt in the utility's
23 proposed capital structure. The Commission then applies a different rate,
24 traditionally one half of the risk-free rate, to what has been commonly referred to
25 as the "fair value increment."⁶ The fair value increment is the difference between

26 ⁶ Decision No. 70665 (December 24, 2008), p. 32.

1 the original cost rate base ("OCRB") and the FVRB. The FVROR is then the sum
2 of the returns on each of the three components: (1) equity capital, (2) debt capital,
3 and (3) the fair value increment, weighted by the percentage of each in the FVRB.
4 I discuss this more detail later in my testimony.

5 **III. OVERVIEW OF THE RELATIONSHIP BETWEEN RISK AND THE**
6 **EXPECTED RETURN ON INVESTMENT.**

7 **Q. WHAT EXACTLY IS THE COST OF EQUITY?**

8 The cost of equity is the rate of return that equity investors expect to receive on
9 their investment. Investors can choose from numerous investment options, not
10 simply publicly traded stock. Investments have varying degrees of risk, ranging
11 from relatively low risk assets such as Treasury securities to somewhat higher risk
12 corporate bonds to even higher risk common stocks. As the level of risk increases,
13 investors require higher returns on their investment. The cost of equity is therefore
14 the expected rate of return that the market requires to attract funds to a particular
15 investment.⁷ Finance models that are used to estimate the cost of equity rely on
16 this basic concept.

17 **Q. CAN YOU ILLUSTRATE THE CAPITAL MARKET RISK-RETURN**
18 **CONCEPT?**

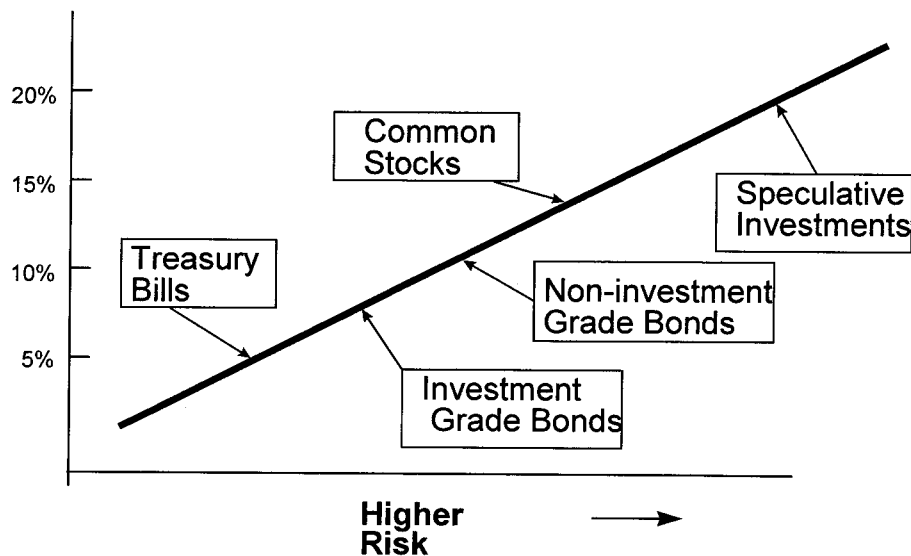
19 A. Yes. The following graph depicts the risk-return relationship that has become
20 widely known as the Capital Market Line ("CML"). The CML illustrates in a
21 general way the risk-return relationship.

22
23
24
25
26

⁷ Pratt, Shannon P. and Grabowski, Roger J. *Cost of capital: Applications and Examples*,
Fifth Edition. Hoboken, NJ: John Wiley and Sons, 2014, p. 2.

The Capital Market Line (CML)

Expected Rate of Return



The CML can be viewed as a continuum of the available investment opportunities for investors. Investment risk increases as you move upward and to the right along the CML. Again, the return required by investors increases with the risk.

Q. HOW DOES THE RISK-RETURN TRADE OFF CONCEPT WORK IN THE CAPITAL MARKET?

A. As indicated by the CML, the allocation of capital in a free market economy is based upon the relative risk of, and expected return from, an investment. In general, investors rank investment opportunities in the order of their relative risks. Investment alternatives in which the expected return is commensurate with the perceived risk become viable investment options. If all other factors remain equal, the greater the risk, the higher the rate of return investors will require to

1 compensate them for the possibility of loss of either the principal amount invested
2 or the expected annual income from such investment.

3 Short-term Treasury bills provide a high degree of certainty and in nominal
4 terms (after considering inflation) are considered virtually risk free. Long-term
5 bonds and preferred stocks, having priority claims to assets and fixed income
6 payments, are relatively low risk, but are not risk free. The market values of long-
7 term bonds often fluctuate when government policies or other factors cause interest
8 rates to change. Common stocks are higher and farther to the right on the CML
9 continuum because they are exposed to more risk. Common stock risk includes the
10 nature of the underlying business and financial strength of the issuing corporation
11 as well as market-wide factors, such as general changes in capital costs.

12 The capital markets reflect investor expectations and requirements each day
13 through market prices. Prices for stocks and bonds change to reflect investor
14 expectations and the relative attractiveness of one investment relative to others.
15 While the example provided above seems straightforward, returns on common
16 stocks are not directly observable in advance, in contrast to debt or preferred stocks
17 with fixed payment terms. This means that these returns must be estimated from
18 market data. Estimating the cost of equity capital should be a matter of informed
19 judgment about the relative risk of the investment in question and the expected rate
20 of return characteristics of other alternative investments. It isn't sufficient, in my
21 view, to simply run a financial model and just uncritically accept the results.

22 The estimation of a utility's cost of equity is complex. It requires an
23 analysis of the factors influencing the cost of various types of capital, such as
24 interest on long-term debt, dividends on preferred stock, and earnings on common
25 equity. The data for such an analysis comes from highly competitive capital
26 markets, where the firm raises funds by issuing common stock, selling bonds, and

1 by borrowing (both long- and short-term) from banks and other financial
2 institutions. In the capital markets, the cost of capital, whether the capital is in the
3 form of debt or equity, is determined by two important factors: (1) the pure or real
4 rate of interest, often called the risk-free rate of interest; and (2) the uncertainty or
5 risk premium (the compensation the investor requires over and above the real or
6 pure rate of interest for subjecting his capital to additional risk).

7 **Q. PLEASE DISCUSS THESE FACTORS IN GREATER DETAIL.**

8 A. The pure rate of interest essentially reflects both the time preference for and the
9 productivity of capital. From the standpoint of the individual, it is the rate of
10 interest required to induce the individual to forgo present consumption and offer
11 the funds thus saved to others for a specified length of time. Moreover, the pure
12 rate of interest concept is based on the assumption that no uncertainty affects the
13 investment undertaken by the individual, i.e., there is no doubt that the periodic
14 interest payments will be made and the principal returned at the end of the time
15 period. In reality, investments without any risk do not exist. Every commitment of
16 funds involves some degree of uncertainty.

17 Turning to the second factor affecting the cost of capital, it is generally
18 accepted that the higher the degree of uncertainty, the higher the cost of capital.
19 Investors are regarded as risk averse and require that the rate of return increase as
20 the risk(s) (uncertainty) associated with an investment increase(s).

21 **Q. CAN YOU PROVIDE SOME PERSPECTIVE ON YOUR PREVIOUS**
22 **DISCUSSION WITH RESPECT TO RETURNS ON COMMON STOCKS?**

23 A. Yes. Conceptually,

24 [1] Required Return for Return on a
25 Common Stocks = risk-free asset + Risk Premium
26

1 where the risk premium investors require for common stocks will be higher than
2 the risk premium they require for investment grade bonds. This relationship is
3 depicted in the graph of the CML above. As I will discuss later in this testimony,
4 this concept is the basis of risk premium methods, such as the CAPM, that are used
5 to estimate the cost of equity.

6 **Q. PLEASE DISCUSS IN MORE DETAIL THE IMPACT OF RISK ON**
7 **CAPITAL COSTS.**

8 A. With reference to specific utilities, risk is often discussed as consisting of two
9 separate types of risk: business risk and financial risk.

10 Business risk, the basic risk associated with any business undertaking, is the
11 uncertainty associated with the enterprise's day-to-day operations. In essence, it is
12 a function of the normal day-to-day business environment, both locally and
13 nationally. Business risks include the condition of the economy and capital
14 markets, the state of labor markets, regional stability, government regulation,
15 technological obsolescence, and other similar factors that may impact demand for
16 the business product and its cost of production. For utilities, business risk also
17 includes the volatility of revenues due to abnormal weather conditions, degree of
18 operational leverage, regulation, and regulatory climate. Regulation, for example,
19 can compound the business risk if it is unpredictable in reacting to cost increases,
20 both in terms of the time lag and magnitude for recovery of such increases. This is
21 a problem in Arizona where regulatory lag is long and makes it difficult for utilities
22 to earn their authorized return, particularly in an inflationary environment and/or
23 when there is significant lag between the timing of investment in capital projects
24 and its recognition in rates. Not only is Arizona's regulatory environment unique,
25 but there are also some limits on the Commission's authority to use some of the
26 tools available to ameliorate the adverse consequences of regulatory lag.

1 Put simply, the greater the degree of uncertainty regarding these various factors
2 affecting a company's business, the greater the risk of an investment in that
3 company and the greater the compensation required by the investor.

4 Financial risk, on the other hand, concerns the distribution of business risk
5 to the various capital investors in the utility. Permanent capital is normally divided
6 into three categories: long-term debt, preferred stock, and common equity.
7 Because common equity owners have only a residual claim on earnings after debt
8 and preferred stockholders are paid, financial risk tends to be concentrated in that
9 element of the firm's capital. Thus, a decision by management to raise additional
10 capital by issuing additional debt concentrates even more of the financial risk of
11 the utility in the common equity owners.

12 **Q. WHAT ARE THE DETERMINANTS OF THE RISK FREE RATE IN**
13 **EQUATION [1]?**

14 A. The risk-free rate can be disaggregated into a "real" rate of interest and an inflation
15 premium (expected future inflation).

16 **Q. WHAT ARE THE DETERMINANTS OF THE REQUIRED RISK**
17 **PREMIUM FROM EQUATION [1]?**

18 A. The risk premium can be disaggregated into five general components: (1) Interest
19 Rate Risk; (2) Business Risk; (3) Regulatory Risk; (4) Financial Risk; and
20 (5) Liquidity Risk.⁸

21 Interest Rate Risk refers to the variability in return caused by subsequent
22 changes in interest rates and stems from the inverse relationship between interest
23 rates and asset prices. For example, bond prices fall when interest rates rise and
24 vice versa.

25 ⁸ Morin, Dr. Roger A. *New Regulatory Finance*. Vienna, VA: Public Utilities Reports,
26 Inc., 2006 ("Morin"), p. 36.

1 Business risk, the basic risk associated with any business undertaking, is the
2 uncertainty associated with the enterprise's day-to-day operations. In essence, it is
3 a function of the normal day-to-day business environment, both locally and
4 nationally, that collectively increases the probability that expected future income
5 flows accruing to investors might not be realized. Business risks include the
6 condition of the economy and capital markets, the state of labor markets, regional
7 stability, technological obsolescence, degree of competition, sales volatility,
8 government regulation, and other similar factors that may impact demand for the
9 business product and its cost of production. For utilities, business risk also
10 includes the volatility of revenues due to abnormal weather conditions and the
11 degree of operational leverage.

12 Regulatory risk refers to the quality and consistency of regulation applied to
13 a given regulated utility. Regulatory jurisdictions are evaluated on the basis of
14 three major factors: earnable return on equity, regulatory quality, and regulatory
15 practices.⁹ These three factors collectively impact a utility's ability to earn its
16 authorized return. The type of test year employed (historical or future), capital
17 structure and rate base issues, and length of regulatory lag are among the reasons a
18 utility may or may not have a reasonable opportunity to earn its authorized return.

19 Financial risk concerns the distribution of business risk to the various capital
20 investors in the utility and refers to the additional variability imparted to income
21 available to common shareholders stemming from the entity's method of financing
22 its capital needs. As I discussed earlier, because common equity owners have only
23 a residual claim on earnings after debt and preferred stockholders are paid,
24 financial risk tends to be concentrated in that element of the firm's capital.

25
26 ⁹ Morin, p.43.

1 Construction risk is an important component of financial risk. Construction
2 risk is the risk of both tying capital up in projects that are not earning returns, or of
3 not having sufficient capital to build the assets needed to keep generating returns.
4 If an entity has a large construction budget relative to internally generated cash
5 flows, it will require external financing, which will also have an impact on
6 financial risk. It is important that entities have access to capital funds on
7 reasonable terms and conditions. Utilities are very susceptible to construction risk
8 for two reasons. First, water and wastewater utilities generally have high capital
9 requirements to build plant to serve customers. Second, utilities have a mandated
10 obligation to serve leaving less flexibility both in the timing and discretion of
11 scheduling capital projects. This is compounded by the limited ability to wait for
12 more favorable market conditions to raise the capital necessary to fund the capital
13 projects. It is imperative that the utility has access to needed capital and on
14 reasonable terms and conditions. The return allowed on common equity will have
15 a critical role in determining those terms and conditions.¹⁰

16 Although often discussed separately, the two types of risks (business and
17 financial) are interrelated. A study by Scott and Martin found statistically
18 significant results for unregulated firms in twelve industries that "smaller equity
19 ratios (higher leverage use) are generally associated with larger companies."¹¹
20 One should expect unregulated enterprises to seek the best balance between debt
21 and equity to obtain the lowest overall cost of capital. The findings of Scott and
22 Martin suggest smaller firms find it prudent to *offset higher business risks related*
23 *to being small by reducing financial risk.* This evidence suggests the least cost

24
25 ¹⁰ Morin, p. 48.

26 ¹¹ Scott, D.F. and Martin, J.D., "Industry Influence on Financial Structure," *Financial Management*, Spring 1975, pp. 67-71.

1 equity ratio for Liberty EDO may be bigger than the average equity ratio for the
2 benchmark water proxy group.

3 Finally, Liquidity Risk refers to the ability to readily convert an investment
4 into cash without sustaining a loss. Capital market theory generally assumes that
5 investments are liquid and observations about risk and return are drawn from
6 information about liquid investments. Non-publicly traded or privately held
7 investments possess little liquidity.

8 **Q. IS INVESTMENT RISK IMPACTED BY SIZE?**

9 A. Yes. Investment risk is size related.¹² In other words, investment risk increases as
10 company size decreases.¹³ Investment liquidity may be a significant factor
11 explaining this relationship. However, the illiquidity of smaller stocks does not
12 capture the size effect completely.¹⁴ Size may be a proxy for one or more true
13 unknown factors correlated with size.¹⁵

14 **IV. THE MEANING OF "JUST AND REASONABLE" RATE OF RETURN.**

15 **Q. HAVE THE COURTS SET FORTH ANY CRITERIA THAT GOVERN THE**
16 **RATE OF RETURN THAT A UTILITY'S RATES SHOULD PRODUCE?**

17 A. Yes. In 1923, the U.S. Supreme Court set forth the following criteria for
18 determining whether a rate of return is reasonable in *Bluefield Water Works and*
19 *Improvement Co. v. Public Service Commission of West Virginia*, 262 U.S. 679,
20 692-93 (1923):

21 A public utility is entitled to such rates as will permit it to
22 earn a return on the value of the property which it employs
23 for the convenience of the public equal to that generally being
made at the same time and in the same general part of the

24 ¹² Morin, p. 49.

25 ¹³ *Id.*

26 ¹⁴ *Duff & Phelps*, pp. 4-21 – 4-22.

¹⁵ *Duff & Phelps*, p. 4-25.

1 country on investments on other business undertakings which
2 are attended by corresponding risks and uncertainties The
3 return should be reasonably sufficient to assure confidence in
4 the financial soundness of the utility and should be adequate,
5 under efficient and economical management, to maintain and
6 support its credit and enable it to raise money necessary for
7 the proper discharge of its public duties. A rate of return may
8 be reasonable at one time and become too high or too low by
9 changes affecting opportunities for investment, the money
10 market, and business conditions generally.

11 Then, in *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591
12 (1944), the U.S. Supreme Court stated the following regarding the return to owners
13 of an entity:

14 [T]he return to the equity owner should be commensurate
15 with returns on investments in other enterprises having
16 corresponding risks. That return, moreover, should be
17 sufficient to assure confidence in the financial integrity of the
18 enterprise, so as to maintain its credit and to attract capital.

19 320 U.S. at 603.

20 In summary, under *Hope* and *Bluefield*:

- 21 (1) The rate of return should be similar to the return in businesses with
22 similar or comparable risks;
- 23 (2) The return should be sufficient to ensure the confidence in the
24 financial integrity of the utility; and
- 25 (3) The return should be sufficient to maintain and support the utility's
26 credit.

27 **Q. HAVE THESE CRITERIA BEEN APPLIED IN REGULATORY PROCEEDINGS?**

28 A. Yes, but the application of the "reasonableness" criteria laid down by the Supreme
29 Court has resulted in controversy. The typical method of computing the overall
30 cost of capital is quite straightforward: it is the composite, weighted cost of the
31 various classes of capital (debt, preferred stock, and common equity) used by the

1 utility. Calculating the proportion that each class of capital bears to total capital
2 does the weighting. However, there is no consensus regarding the best method of
3 estimating the cost of equity capital. The increasing regulatory use of market-
4 based finance models in equity return determinations has not led to a universally
5 accepted means of estimating the ROE. In addition, the market-based results are
6 too often applied to a book-value investment base, which, as I will discuss,
7 understates the return expected by investors who invest in real markets based on
8 market values.

9 **V. THE ESTIMATED COSTS OF EQUITY FOR LIBERTY EDO.**

10 **A. The Publicly Traded Utilities That Comprise the Sample Group Used to**
11 **Estimate the Cost of Equity.**

12 **Q. PLEASE DESCRIBE THE APPROACH YOU FOLLOWED IN YOUR**
13 **COST OF CAPITAL ANALYSIS FOR LIBERTY EDO.**

14 **A.** Again, estimating the cost of equity is a matter of informed judgment.
15 The development of an appropriate rate of return for a regulated enterprise involves
16 a determination of the level of risk associated with that enterprise and the
17 determination of an appropriate return for that risk level. Practitioners employ
18 various techniques that provide a link to actual capital market data and assist in
19 defining the various relationships that underlie the equity cost estimation process.

20 Liberty EDO is not publicly traded so the information required to directly
21 estimate its cost of equity is not available. Accordingly, as previously noted, I used
22 a sample group of water utilities as a *starting point* to develop an appropriate cost
23 of equity for Liberty EDO. An analysis of a proxy group serves as a starting point
24 because no proxy group is identical in risk to Liberty EDO. Therefore, the proxy
25 group's results must be adjusted to reflect the unique relative risks, financial and
26 business risks, as I will discuss in detail below.

1 **Q. WHICH COMPANIES COMPRISE YOUR SAMPLE GROUP?**

2 A. For the three models employed in my analysis, I used data from a sample of
3 publicly traded water utilities, or proxy group, selected from the *Value Line*
4 *Investment Survey* as a starting point. There are seven water utilities in my sample:
5 American States Water (“AWR”), Aqua America (“WTR”), California Water
6 Company (“CWT”), Connecticut Water (“CTWS”), Middlesex Water (“MSEX”),
7 SJW Corp. (“SJW”), and York Water Company (“YORW”).

8 The basis of selection for the proxy group of seven water companies was to
9 select those companies that meet the following criteria: (1) they are included in the
10 Water Company Group of AUS Utility Reports (February 2016); (2) they are
11 followed by the *Value Line Investment Survey*; (3) they have at least ten years of
12 historical financial and market information; (4) they have a *Value Line* adjusted
13 beta; (5) they have not cut or omitted their common dividends during the five years
14 ending 2015 or through the time of the preparation of this testimony; (6) they have
15 60 percent or greater of 2015 total net operating income derived from regulated
16 water operations; and (7) at the time of the preparation of this testimony, they had
17 not publicly announced that they were involved in any major merger or acquisition
18 activity.

19 **Q. BUT THE WATER UTILITIES IN YOUR SAMPLE ARE NOT DIRECTLY**
20 **COMPARABLE TO LIBERTY EDO?**

21 A. That is correct. But they are utilities for which market data is available. All of
22 them are regulated, they primarily provide water service, although some provide
23 both water and wastewater services, and their primary source of revenues is from
24 regulated services. Therefore, they provide a useful *starting point* for developing a
25 cost of equity for Liberty EDO, recognizing that the proxy group is not perfectly
26 comparable.

1 Q. BRIEFLY, WHY IS A PROXY GROUP NECESSARY FOR COMPARISON
2 IN A COST OF CAPITAL ANALYSIS?

3 A. First, a fair rate of return for a specific utility is the return required by investors to
4 hold correspondingly risky assets. Market data for a sample of comparable risk
5 companies provides insight into the investors' required return, and that satisfies the
6 U.S. Supreme Court's decisions in *Bluefield* and *Hope*, which I discussed earlier.
7 The comparable earnings standard set forth in the *Hope* and *Bluefield* decisions
8 requires that the rate of return afforded to utilities be similar to the return in
9 businesses with similar or comparable risks. It follows that a proxy group of
10 companies with comparable risk is the starting point in a cost of capital analysis.

11 Second, a primary objective of rate regulation is to determine an authorized
12 ROE that is both fair to customers and provides satisfactory returns for the subject
13 utility. The best estimate of that ROE is the cost of equity for Liberty EDO.
14 The cost of equity is a cost of service fairly recovered from customers through
15 rates. It is also satisfactory to investors in Liberty EDO, because it is
16 commensurate with returns an investor in these utilities would expect to earn from
17 investments of comparable risk. To estimate the cost of equity requires market
18 data that reveal investor-required returns. But Liberty EDO is not publicly traded
19 so there is no market information to determine the cost of equity. This necessitates
20 the selection of a proxy group.

21 Q. THANK YOU. CAN YOU PLEASE PROVIDE A GENERAL
22 DESCRIPTION OF THE WATER UTILITIES IN YOUR SAMPLE?

23 A. Yes. Schedule D-4.2 lists the percentages of regulated revenues, operating
24 revenues, net plant, S&P bond ratings, allowed ROEs, *Value Line* betas, market
25 capitalization, and market size category for the seven water utilities. Comparative
26 data for Liberty EDO is also shown in Schedule D-4.2. The seven sample

1 companies may be generally described as follows:

- 2 (1) American States Water (AWR) primarily serves the California
3 market through Golden State Water Company, which provides water
4 services to over 256,000 customers within 75 communities in
5 10 counties in the State of California, primarily in Los Angeles,
6 San Bernardino, and Orange counties. AWR also owns an electric
7 utility service provider, Bear Valley Electric Service, with over
8 23,600 customers. AWR also provides contractual services to the
9 U.S. government and private entities located in 5 states through its
10 subsidiary, American States Utility Services. Total operating
11 revenues for AWR are nearly \$465 million and net plant is nearly
12 \$999 million.
- 13 (2) Aqua America (WTR) owns regulated utilities in Pennsylvania,
14 Ohio, North Carolina, Illinois, Texas, New Jersey, Indiana, and
15 Virginia, serving nearly 940,000 customers. WTR's utility base is
16 diversified among residential water, commercial water, fire
17 protection, industrial water, other water, and wastewater customers.
18 Total operating revenues for WTR are nearly \$780 million and net
19 plant is over \$4.4 billion.
- 20 (3) California Water Service Group (CWT) owns subsidiaries in
21 California, New Mexico, Washington, and Hawaii serving nearly
22 506,000 customers. CWT also owns HWS Utility Services, which
23 conducts CWT's non-regulated business. These services include
24 providing billing, water quality testing, and water and wastewater
25 system operations and management services to cities and other
26 companies. Operating revenues for CWT are nearly \$598 million

1 and net plant is nearly \$1.6 billion.

2 (4) Connecticut Water Services (CTWS) owns subsidiaries in
3 Connecticut and Maine serving over 123,000 customers. CTWS also
4 provides utility operating services under contract to municipalities
5 and other water systems. Revenues for CTWS are nearly \$95 million
6 and net plant is nearly \$495 million.

7 (5) Middlesex Water (MSEX) owns subsidiaries in New Jersey, and
8 Delaware serving over 100,000 customers and provides water service
9 under contract to municipalities in central New Jersey serving a
10 population of 219,000. Operating revenues for MSEX are over \$117
11 million and net plant is over \$465 million.

12 (6) SJW Corp. (SJW) owns San Jose Water, which provides water
13 service in a 138 square mile area in San Jose, California, and
14 surrounding communities serving nearly 229,000 customers. SJW
15 also owns operations in Texas serving approximately 12,000
16 connections. San Jose Water Company also provides non-regulated
17 services under agreements with municipalities and other utilities.
18 Operating revenues for SJW are nearly \$318 million and net plant is
19 nearly \$944 million.

20 (7) York Water Company (YORW) provides water service in the state of
21 Pennsylvania serving over 65,000 water and wastewater customers in
22 more than 47 communities. Operating revenues for YORW are
23 nearly \$46 million and net plant is nearly \$250 million.

24 **Q. DO ANY OF THE SAMPLE COMPANIES HAVE OPERATIONS IN**
25 **ARIZONA?**

26 **A.** No, and that's just one of several reasons why the publicly traded utilities are very

1 different from Liberty EDO. The utilities in the water proxy group are much larger
2 and, according to the empirical financial data, they are less risky than the Liberty
3 EDO. Liberty EDO is much smaller with fewer customers, a relatively small and
4 limited service territory, far less revenues and far less net plant. At the end of the
5 test year, Liberty EDO had approximately 335 customers.

6 Additionally, Liberty EDO's revenues totaled approximately \$0.3 million,
7 and net plant-in-service was approximately \$2.8 million. The average revenues of
8 my water proxy group are nearly 1,220 times greater than Liberty EDO, and those
9 entities have on average over 464 times the net plant of Liberty EDO. The smallest
10 of the publicly traded water utilities in my proxy group, York Water Company, has
11 over 166 times the revenues and over 88 times the net plant of Liberty EDO.

12 In other words, the proxy companies are a starting point but that does not
13 mean they are comparable. I will discuss specific measures of business risk that
14 quantify the differences between Liberty EDO and the water proxy group later in
15 my testimony.

16 **Q. DO RECENT DEVELOPMENTS IN THE WATER UTILITY INDUSTRY**
17 **IMPACT INVESTMENTS?**

18 A. Yes. On the whole, the water and wastewater utility industry is expected to
19 continue to confront increasing need for infrastructure upgrades and replacement,
20 as well as possible additional demand. *Value Line Investment Survey* (January 15,
21 2016) continues to stress that many utilities have facilities that are decades old and
22 in need of significant maintenance and, in some cases, massive renovation and
23 replacement. As infrastructure costs continue to climb, many smaller companies
24 are at a serious disadvantage. *Value Line* notes that most of the companies in this
25 sector lack the finances necessary to fund improvements on their own. This will
26 require water utilities in this sector to rely heavily upon debt and equity offerings

1 for funding. The additional funding will thwart share-earnings and dilute
2 shareholder gains. A copy of the most recent *Value Line* report on the water
3 industry along with each water utility in my proxy group is attached as **Exhibit**
4 **TJB-COC-DT1**.

5 **Q. WHAT OTHER RISK FACTORS DISTINGUISH LIBERTY EDO FROM**
6 **THE LARGER WATER UTILITIES IN YOUR PROXY GROUP?**

7 A. First, water and wastewater utilities are capital intensive and typically have
8 relatively large construction budgets. As I have previously discussed in this
9 testimony, firms with large capital budgets face construction risk (a form of
10 financial risk). The size of a utility's capital budget relative to the size of the utility
11 itself often increases construction risk. Large utilities are better able to fund their
12 capital budgets from their earnings, cash flows, and short-term borrowings.
13 For smaller utilities the ability to fund relatively large capital budgets from
14 earnings, cash flows, and short-term debt is difficult, if not impossible, without
15 reliance upon additional outside capital.

16 Second, smaller companies are simply less able to cope with significant
17 events that affect sales, revenues and earnings. In general, the loss of revenues
18 from a few larger customers or from trends in the reduction of usage by customers
19 through conservation or the makeup of the customer base, for example, would have
20 a greater effect on a small company than on a much larger company with a larger
21 customer base.

22 Third, there are a number of other factors, including the differences in
23 regulatory environments, differences in the type of test year used for rate making,
24 and differences in the available regulatory mechanisms for recovery of costs
25 outside of a rate case. The large water utilities in my water proxy group are
26 generally not subject to the adverse impacts of an unfavorable regulatory

1 environment of one jurisdiction. In contrast, Liberty EDO is entirely subject to the
2 adverse impacts of Arizona regulation. Arizona is an historical test year state,
3 which means that plant investment will typically have to be funded, built and put in
4 service before the utility can file a rate case to put such plant in rates. Additionally,
5 the recent decision declaring the SIB unlawful and restrictively interpreting the
6 state's unique constitutional requirements for utility regulation furthers the risk and
7 uncertainty of Arizona regulation.¹⁶

8 In summary, there are many factors that impact the ability of a smaller
9 utility to actually earn its authorized return. An inadequate opportunity to earn the
10 revenues authorized in a rate case leads to a greater variability of earnings for
11 entities like Liberty EDO when compared to the proxy group. This volatility
12 means greater risk, and greater risk requires higher returns.

13 **Q. ARE THERE QUANTITATIVE MEASURES THAT CAN BE USED TO**
14 **HELP IDENTIFY DIFFERENCES IN BUSINESS RISK?**

15 A. Yes. There are a number of fundamental accounting based risk measures that can
16 be used to assess the relative differences between firms and include: (1) The co-
17 efficient of variance of ROE; (2) the co-efficient of variance of operating income;
18 (3) the co-efficient of variance of operating margin; and (4) Operating Leverage.
19 The first three reflect the distributions of earnings. These are meaningful when
20 measured against the distribution of earnings of alternative investments, like the
21 water utilities in my water proxy group.

22 The co-efficient of variance of ROE can be quantified using a relatively
23 simple formula:

24
$$[2] \text{ Co-efficient of Variance of ROE} = \text{Standard Deviation of ROE} / \text{Mean of ROE}$$

25
26 ¹⁶ *RUCO v. Arizona Corporation Commission* (August 18, 2015).

1 The co-efficient of variance of operating income can be quantified using a
2 relatively simple formula:

3 [3] Co-efficient of Variance of Operating Income = Standard Deviation of
4 Operating Income/Mean of Operating Income

5 The co-efficient of variance of operating margin can be quantified using a
6 relatively simple formula:

7 [4] Co-efficient of Variance of Operating Margin = Standard Deviation of
8 Operating Margin/Mean of Operating Margin

9 And, the Operating Leverage formula is expressed as:

10 [5] Operating Leverage = Percentage Change in Operating Income/Percentage
11 Change in Sales

12 Using the business risk measures expressed in equations [2], [3], and [4], the
13 greater the co-efficient of variation or Operating Leverage, the greater the risk to
14 investors of not receiving expected returns.¹⁷ Below are the computed co-efficient
15 of variation for ROE, Operating Income, and Operating Margin, as well as
16 Operating Leverage using the most recent 5 years of historical data for my water
17 proxy group and Liberty EDO:

<u>Company</u>	<u>Business Risk</u> <u>Co-efficient of</u> <u>variance of</u> <u>ROE</u>	<u>Business Risk</u> <u>Co-efficient of</u> <u>variance of</u> <u>Operating</u> <u>Income</u>	<u>Business</u> <u>Risk</u> <u>Co-efficient</u> <u>of variance</u> <u>of Operating</u> <u>Margin</u>	<u>Operating</u> <u>Leverage</u>
Water Proxy Group	0.1271	0.1579	0.0895	3.06
Liberty EDO	0.4253	0.4223	0.4021	94.63
Relative Risk of Liberty EDO to Water Proxy Group	3.35	2.67	4.49	30.94

17 Tuller, Lawrence W. *The Small Business Valuation*. Avon, MA: Adams Media Corporation, 1994, p. 89.

1 These metrics show that Liberty EDO is 2.7 to 4.5 times more risky than the water
2 proxy group (ignoring operating leverage).

3 **Q. CAN METRICS LIKE A COMPANY'S CO-EFFICIENT OF ROE,**
4 **OPERATING INCOME, AND OPERATING MARGIN, BE USED ALONG**
5 **WITH MARKET DATA TO DEVELOP COMPANY-SPECIFIC RISK**
6 **PREMIUMS?**

7 A. Yes. *Duff & Phelps* publishes comparative risk characteristics using market data
8 that provides a nexus between a market beta and the metrics operating margin, the
9 coefficient of variation in operating margin, and the coefficient of variation in
10 return on equity.¹⁸ This information can be used to develop an implied beta for
11 Liberty EDO for use in the CAPM. By comparing the results of the CAPM for the
12 water proxy group with the CAPM for Liberty EDO using the implied beta,
13 indicated risk premiums can be developed. As one would expect, the implied beta
14 for Liberty EDO is higher than the beta of my water proxy group. A risk premium
15 of 200 to 260 basis points over the cost of equity of the water proxy group is
16 indicated for Liberty EDO. I will discuss the indicated risk premiums and implied
17 beta in more detail in the Company Specific Risk Premium section of this direct
18 testimony.

19 **Q. WHAT ABOUT LIQUIDITY RISK, MR. BOURASSA?**

20 A. A rational investor would not regard an investment in Liberty EDO as having the
21 same level of risk as WTR or even the smaller CTWS because of the previously
22 mentioned small size characteristics, and the fact that an investment in Liberty
23 EDO is relatively illiquid compared to the publicly traded water utilities. An
24 investor in a publicly traded stock can sell his/her stock in a very short period of
25

26 ¹⁸ *Duff & Phelps*, Exhibits D-1 through D-3.

1 time if he/she is dissatisfied with the returns. An investor in a non-publicly traded
2 stock does not have the ability to sell quickly. Consequently, investors will require
3 a greater risk premium, often called liquidity risk premium. As a consequence of
4 these differences in risk, the results produced by the DCF, RPM, and CAPM
5 methodologies, utilizing data for the sample utilities, often understate the
6 appropriate return on equity for a small, regulated water and/or wastewater utility
7 provider such as Liberty EDO.

8 **Q. IS THERE A RELATIONSHIP BETWEEN A UTILITY'S CAPITAL**
9 **STRUCTURE AND ITS COST OF CAPITAL?**

10 A. Yes. Generally speaking, when a firm engages in debt financing, it exposes itself
11 to greater risk. Once debt becomes significant relative to the total capital structure,
12 the risk increases in a geometric fashion compared to the linear percentage increase
13 in the debt ratio itself. This risk is illustrated by considering the effect of leverage
14 on net earnings. For example, as leverage increases, the equity ratio falls. This
15 creates two adverse effects. First, equity earnings decline rapidly and may even
16 disappear. Second, the "cushion" of equity protection for debt falls. A decline in
17 the protection afforded debt holders, or the possibility of a serious decline in debt
18 protection, will act to increase the cost of debt financing. Therefore, one may
19 conclude that each new financing, whether through debt or equity, impacts the
20 marginal cost of future financing by any alternative method.

21 For a firm already perceived as being over-leveraged, this additional
22 borrowing would cause the marginal costs of both equity and debt to increase.
23 On the other hand, if the same firm instead successfully employed equity funding,
24 this could actually reduce the real marginal cost of additional borrowing, even if
25 the particular equity issuance occurred at a higher unit cost than an equivalent
26 amount of debt.

1 **Q. HOW DO THE CAPITAL STRUCTURES OF THE SAMPLE WATER**
2 **UTILITIES COMPARE TO THE PROPOSED PRO FORMA CAPITAL**
3 **STRUCTURES FOR LIBERTY EDO?**

4 A. Schedule D-4.3 shows that the debt and equity capital structure used to develop the
5 cost of capital for Liberty EDO contains 70 percent equity and 30 percent debt,
6 compared to the average of the water utility sample of approximately 56 percent
7 equity and 44 percent debt. Having less debt in its capital structure implies that
8 Liberty EDO has lower financial risk than the sample water utilities. I have taken
9 into account the lower financial risk of Liberty EDO compared to the water proxy
10 group using the Hamada method, which I will discuss later.

11 **B. Overview of the DCF, RPM, AND CAPM Methodologies.**

12 **Q. PLEASE EXPLAIN THE GENERAL APPROACHES TO ESTIMATING**
13 **THE COST OF CAPITAL.**

14 A. There are two broad approaches:

- 15 1) identify comparable-risk sample companies and estimate the cost of
16 capital directly, or
- 17 2) find the location of the CML and estimate the relative risk of the
18 company, which jointly determines the cost of capital.

19 The DCF method is an example of a method falling into the first general
20 approach. It is a direct method, but uses only a subset of the total capital market
21 evidence. The DCF rests on the premise that the fundamental value of an asset
22 (stock) is its ability to generate future cash flows to the owner of that asset (stock).
23 I will explain the DCF in detail in a moment, but for now, the DCF is simply the
24 sum of a stock's expected dividend yield and the expected long-term growth rate.
25 Dividend yields are readily available, but long-term growth estimates are not.

26

1 The RPM and CAPM are examples of methods falling into the second
2 general approach. An equity risk premium is made first by determining the
3 relationship between the cost of equity and an interest rate over time. To
4 implement these approaches, it is generally assumed that the past relationship will
5 continue on into the future. The RPM generally uses a small subset of the capital
6 market evidence whereas the CAPM uses information on all securities rather than a
7 small subset. I will explain the RPM and CAPM in more detail later. For now,
8 both the RPM and CAPM reflect a risk-return relationship, often depicted
9 graphically as the CML. The RPM and CAPM cost of equity estimates are the sum
10 of a risk-free return and a risk premium.

11 Each of these methods measures investor expectations. In the final analysis,
12 ROE estimates are subjective and should be based on sound, informed judgment
13 rationally articulated and supported by competent evidence. I have applied two
14 versions of the DCF, one version of the RPM, and two versions of the CAPM to
15 “bracket” the fair cost of equity capital for the publicly traded water utilities in my
16 proxy group. I then add risk premiums to results of the models for the water proxy
17 group to account for the differences in business risk and regulatory risk between
18 the water proxy group and Liberty EDO.

19 **C. Explanation of the DCF Model and Its Inputs.**

20 **Q. PLEASE EXPLAIN THE DCF METHOD OF ESTIMATING THE COST OF**
21 **EQUITY.**

22 **A.** The DCF model is based on the concept that the current price of a share of stock is
23 equal to the present value of future cash flows from the purchase of the stock.
24 In other words, the DCF model is an attempt to replicate the market valuation
25 process that sets the price investors are willing to pay for a share of an entity’s
26 stock. It rests on the assumption that investors rely on the expected returns

(i.e., cash flow they expect to receive) to set the price of a security. The DCF model in its most general form is:

$$[6] \quad P_0 = CF_1/(1+k) + CF_2/(1+k)^2 + \dots + CF_n/(1+k)^n$$

where k is the cost of equity; n the number of years and is a very large number; P_0 is the current stock price; and, CF_1, CF_2, \dots, CF_n are all the expected future cash flows expected to be received in periods 1, 2, ... n .

Equation [6] can be written to show that the current price (P_0) is also equal to

$$[7] \quad P_0 = CF_1/(1+k) + CF_2/(1+k)^2 + \dots + P_t/(1+k)^t$$

where P_t is the price expected to be received at the end of the period t . If the future price (P_t) included a premium (an expected increase in the stock price or capital gain), the price the investor would pay today (in anticipation of receiving that premium) would increase. In other words, by estimating the cash flows from the purchase of a stock in the form of dividends and capital gains, we can calculate the investor's required rate of return, i.e., the rate of return an investor presumptively used in bidding the current price to the stock (P_0) to its current level.

Equation [7] is a Market Price version of the DCF model. As with the general form of the DCF model in equation [6], in the Market Price approach the current stock price (P_0) is the present value of the expected cash inflows. The cash flows are comprised of dividends and the final selling price of the stock. The estimated cost of equity (k) is the rate of return investors expect if they bought the stock at today's price, held the stock and received dividends through the transition period, and then sold it for price (P_t).

Q. CAN YOU PROVIDE AN EXAMPLE TO ILLUSTRATE THE MARKET PRICE VERSION OF THE DCF MODEL?

A. Yes. Assume an investor buys a share of common stock for \$40. If the expected

1 dividend during the coming year is \$2.00, then the expected dividend yield is
2 5 percent ($\$2.00/\$40 = 5.0$ percent). If the stock price is also expected to increase
3 to \$43.00 after one year, this \$3.00 expected gain adds an additional 7.5 percent to
4 the expected total rate of return ($\$3.00/\$40 = 7.5$ percent). Thus, the investor
5 buying the stock at \$40 per share expects a total return of 12.5 percent (5 percent
6 dividend yield plus 7.5 percent price appreciation). The total return of 12.5 percent
7 is the appropriate measure of the cost of capital because this is the rate of return
8 that caused the investor to commit \$40 of his capital by purchasing the stock.

9 **Q. PLEASE CONTINUE WITH YOUR DESCRIPTION OF THE DCF**
10 **MODEL.**

11 A. Under the assumption that future cash flow is expected to grow at a constant rate
12 (“g”), equation [6] can be solved for k and rearranged into the simple form:

13 [8] $k = CF_1/P_0 + g$

14 where CF_1/P_0 is the expected dividend yield and g is the expected long-term
15 dividend (price) growth rate (“g”). The expected dividend yield is computed as the
16 ratio of next period’s expected dividend (“ CF_1 ”) divided by the current stock price
17 (“ P_0 ”).

18 This form of the DCF model is known as the constant growth DCF model
19 and recognizes that investors expect to receive a portion of their total return in the
20 form of current dividends and the remainder through future dividends and capital
21 (price) appreciation. A key assumption of this form of the model is that investors
22 expect that same rate of return (k) every year and that market price grows at the
23 same rate as dividends. But, this has not been historically true for the water utility
24 sample, as shown by the data in Schedule D-4.4 and Schedule D-4.5. As a result,
25 estimates of long-term growth rates (g) should take this into account.
26

1 **Q. ARE THERE ANY CONCERNS ABOUT APPLYING THE DCF MODEL**
2 **TO UTILITY STOCKS?**

3 A. There are a number of reasons why caution must be used when applying the DCF
4 model to utility stocks. First, a non-publicly traded company does not have a stock
5 market price. Using the stock prices from a proxy group assumes that the stock of
6 Liberty EDO would be similarly priced and has similar dividend yields as the
7 publicly traded water companies. Second, the stock price and dividend yield
8 components may be unduly influenced by structural changes in the industry, such
9 as mergers and acquisitions, which influence investor expectations. Third, the
10 DCF model is based on a number of assumptions that may not be realistic given the
11 current capital market environment. The traditional DCF model assumes that the
12 stock price, book value, dividends, and earnings all grow at the same rate. This has
13 not been historically true for the sample water utility companies.

14 We should be especially concerned with the DCF model's applicability
15 under current market conditions. The Federal Reserve's past bond buying
16 programs have kept longer-term bond yields low and interest rates are expected to
17 rise,¹⁹ but in the meantime, and because bond yields are still very low, investors are
18 "chasing yields" and driving up the stock prices of companies that pay dividends,
19 like utilities. The *Value Line* Investment Survey (April 17, 2015) for the Water
20 Utility Industry noted:

21 Low bond yields seem to have driven many income-
22 oriented investors into the equity markets. All this
23 money chasing income has brought down the yield on
24 water utilities, relative to the average stock. Currently,
25 the yield of a typical water utility is only about 60 to
26 65 basis points higher than the average stock. This
 spread is very low, on an historical basis.

26 ¹⁹ *Blue Chip Financial Forecasts*, August 2015.

1 Consider that while dividend yields for the water proxy group have been
2 decreasing, 3-year, and 5-year annualized total returns for the water proxy group
3 are 12.09 percent and 11.62 percent, respectively, which are all significantly higher
4 than my DCF estimate of the cost of equity of 9.0 to 9.1 percent.²⁰ The expected
5 equity returns suggested by the market based DCF model does not line up with
6 recent experience in the markets. As Dr. Morin notes,

7 To the extent that increases (decreases) in relative
8 market valuation are anticipated by investors,
9 especially myopic investors with short-term
investment horizons, the standard DCF model will
understate (overstate) the cost of equity.²¹

10 Another way of stating this point is that the DCF model does not account for
11 the ebb and flow of investor sentiments over the course of the business cycle. The
12 problem was particularly acute in the mid 1990's and mid 2000's where investors,
13 faced with very low returns on short-term fixed-income securities and an uncertain
14 market outlook, sought higher yields offered by utility stocks in a so-called flight to
15 quality, boosting their stock price and lowering the dividend yield.²² The
16 circumstances then are not so different than what has been occurring more recently.

17 Fourth, the application of the DCF model produces estimates of the cost of
18 equity that are consistent with investor expectations *only* when the market price of
19 a stock and the stock's book value are approximately the same. The DCF model
20 will understate the cost of equity when the market-to-book ratio exceeds 1.0 and
21 conversely will overstate the cost of equity when the market-to-book ratio is less
22 than 1.0. The reason for this is that the market-derived return produced by the
23 DCF is often applied to book value rate base by regulators.

24 ²⁰ *Value Line Analyzer* data from July 30, 2015.

25 ²¹ Morin, p. 433.

26 ²² *Id.*

1 Fifth, the assumption of a constant growth rate may be unrealistic, and there
2 may be difficulty in finding an adequate proxy for the growth rate. Historical
3 growth rates can be downward biased as a result of the impact of anemic historical
4 growth rates in earnings, mergers and acquisitions, restructuring, unfavorable
5 regulatory decisions, and even abnormal weather patterns. Further, by placing too
6 much emphasis on the past, the estimation of future growth becomes circular.

7 **Q. THANK YOU. LET'S TURN TO THE SPECIFIC INPUTS USED IN YOUR**
8 **DCF MODELS. WHAT DATA HAVE YOU USED TO COMPUTE THE**
9 **EXPECTED DIVIDEND YIELD (CF_1/P_0) IN YOUR MODELS?**

10 A. First, I computed a current dividend yield (CF_0/P_0). The expected dividend yield
11 (CF_1/P_0) is the current dividend yield (CF_0/P_0) times one plus the growth rate (g).
12 I used the spot price for each of the stocks of the water utilities in the sample group
13 as reported by the *Value Line Investment Analyzer* for August 5, 2015 for P_0 .
14 The current dividend (CF_0) is the current indicated dividend as reported by *Value*
15 *Line*. In my schedules, the current dividend yield is denoted as (D_0/P_0), where D_0
16 is the current dividend and P_0 is the spot stock price. (D_1/P_0) is used to denote the
17 expected dividend yield in the schedules.

18 **Q. WHAT MEASURES OF GROWTH (“g”) HAVE YOU USED?**

19 A. I have used two estimates of growth – one based on an average of historical and
20 forecast growth and the other based only on forecast growth. For my average
21 historical and forecast growth estimate, I average the 5-year historical average
22 growth rates in the stock price, book value per share (“BVPS”), earnings per share
23 (“EPS”) and dividends per share (“DPS”) with *Value Line*’s forecast of EPS
24 growth.²³ Using the historical average of growth in price, BVPS, EPS, and DPS is
25

26 ²³ See Schedule D-4.4.

1 reasonable because investors know that, in equilibrium, common stock prices,
2 BVPS, EPS and DPS will all grow at the same rate and would take information
3 about changes in stock prices and growth in BVPS into account when they price
4 utility stocks. As I stated earlier, a basic assumption of the DCF model is that the
5 stock price, BVPS, EPS and DPS all grow at the same rate. For my forecast
6 growth estimate, I have used the growth forecasts from *Value Line*.²⁴

7 **Q. WHY DID YOU INCORPORATE AN HISTORICAL GROWTH RATE**
8 **ESTIMATE INTO ONE OF YOUR GROWTH ESTIMATES?**

9 A. Because past growth rates may provide a reasonable basis for determining
10 prospective growth rates. However, their use assumes the past is a reflection of the
11 future. As a result, historical growth rates give added recognition to the past,
12 which is already incorporated into analyst estimates of growth. This means that
13 historical growth rates may not be the best measure for the future. The empirical
14 evidence indicates that analyst estimates of growth are the best measure of growth
15 for use in the DCF for utility stocks.²⁵

16
17 ²⁴ *Id.*

18 ²⁵ Gordon, David A., Myron J. Gordon and Lawrence I. Gould, "Choice Among Methods
19 of Estimating Share Yield," *Journal of Portfolio Management*, Spring 1989, pp. 50-55.
20 Gordon, Gordon, and Gould found that a consensus of analysts' forecasts of earnings per
21 share growth for the next five years provides a more accurate estimate of growth required
22 in the DCF model than three different historical measures of growth (historical EPS,
23 historical DPS, and historical retention growth). They explain that this result makes sense
24 because analysts would take into account such past growth as indicators of future growth
25 as well as any new information. Other studies confirm the superiority of analysts'
26 estimates such as Vander Weide, James H. and Carleton, Willard T., "Investor Growth
Expectations: Analysts vs. History," *Journal of Portfolio Management*, Spring 1988, pp.
78-87, Brown, Lawrence D. and Rozeff, Michael S., "The Superiority of Analyst
Forecasts as Measures of Expectations: Evidence from Earnings," *Journal of Finance*,
March 1978, pp. 1-16, and Timme, Stephen G. and Eisemann, Peter C., "On the Use of
Consensus Forecasts of Growth in the Constant Growth Model: The Case for Electric
Utilities," *Journal of Financial Management*, Winter 1989, pp. 23-35. A 2004 study by
the Kentucky Public Service Commission Advance Research Center updated the study by
Vander Weide and Carleton (1988) confirmed the superiority of analyst estimates over
historical averages.

1 **Q. WHY DID YOU USE FORECASTED GROWTH RATES IN YOUR**
2 **GROWTH ESTIMATES?**

3 A. The DCF model requires estimates of growth that investors expect in the future, not
4 past estimates of growth that have already occurred. Accordingly, I use analysts'
5 forecasts of growth. Logically, in estimating future growth, financial institutions
6 and analysts have taken into account all relevant historical information on an entity
7 as well as other more recent information.²⁶ To the extent that past results provide
8 useful indications of future growth prospects, analysts' forecasts would already
9 incorporate that information. It cannot be disputed that a stock's current price
10 reflects known historic information on that entity, including its past earnings
11 history. All of which means that any further recognition of the past, such as using
12 past estimates of growth, will double count what has already occurred. Therefore,
13 forward-looking growth rates should be used.

14 **Q. HAVE YOU ADJUSTED YOUR DCF RESULTS?**

15 A. Yes. I have removed any indicated DCF result below 7.1 percent (the expected
16 cost of Baa bonds plus 100 basis points) when computing the average DCF result
17 for the water proxy group. For example, the DCF indicated result on Schedule D-
18 4.7, page 1, is just 4.08 percent for SJW. This result is not plausible. Investors
19 will not invest in risky common stocks if they can earn a higher return on less risky
20 investment grade bonds.

21 **D. Explanation of the RPM and Its Inputs.**

22 **Q. PLEASE EXPLAIN THE RPM METHODOLOGY FOR ESTIMATING**
23 **THE COST OF EQUITY.**

24 A. The RPM is sometimes referred to as the "bond yield plus risk premium method."
25

26 ²⁶ Gordon, Gordon, and Gould.

1 The general approach is to determine the spread between the return on debt and the
2 return on equity and add this spread to the current debt yield to derive an estimate
3 of the cost of equity. To implement the RPM, it is assumed that the past
4 relationship will continue into the future. The RPM is widely used by analysts and
5 investors.²⁷

6 The RPM formula provides a formal risk-return relationship and is stated as:

7
$$(6) k = K_d + \text{Historical bond-equity spread}$$

8 where k is the expected return on equity and K_d is the current cost of debt or debt
9 yield.

10 **Q. HOW DID YOU DETERMINE THE HISTORICAL BOND-EQUITY**
11 **SPREAD?**

12 A. I computed the bond-equity spread as the difference between the average total
13 realized market return of my water proxy group and the average annual long-term
14 treasury yields for the years 2001-2015 - a 15 year historical period.²⁸

15 **Q. WHY DID YOU USE TOTAL REALIZED MARKET RETURNS?**

16 A. Total realized market returns are market based, which makes this a market-based
17 approach. While the annual actual risk premium in any given year may not equal
18 the required risk premium, over longer periods of time, the average actual risk
19 premiums can provide a good estimate of the average risk premium required.

20 **Q. WHAT DO YOU USE AS THE CURRENT COST OF DEBT (K_d)?**

21 A. I use the expected U.S. Long-term Treasury rate for 2017-2019 as the basis for the
22 risk free rate. Since the cost of capital is an opportunity cost and is prospective,
23 it necessarily requires the use of a forward-looking bond yield. In recent years,
24 interest rates have dropped to very low levels when compared to interest rates for

25 ²⁷ Morin, p. 108.

26 ²⁸ See Schedule D-4.9.

1 similar securities in the past. From 1999 to 2007, the annual average rate for long-
2 term Treasury bonds was 5.24 percent, ranging from a low of 4.84 percent in 2007
3 to a high of 5.94 in 2000. In 2008, and during the recent recession, that annual
4 average dropped to 4.24 percent and dropped further in 2012 to 2.9 percent.

5 The drop in long-term Treasury rates has been largely attributed to the
6 market intervention by the Federal Reserve through its quantitative easing
7 programs. Long-term Treasury rates for 2013 and 2014 averaged 3.45 percent and
8 3.34 percent, respectively. For 2015, long-term Treasury rates have averaged 2.84
9 percent. The Federal Reserve is expected to raise interest rates towards the end of
10 this year, as early as September.²⁹ Notwithstanding these current low rates, 30-year
11 Treasury rates are expected to increase to more long-term levels in 2017-2019
12 timeframe. Analysts at *Value Line* expect that future average to be 4.6 percent.
13 The consensus estimate made by analysts surveyed by the *Blue Chip Financial*
14 *Forecasts* indicates analysts expect that average to be somewhat lower at
15 4.3 percent. For my analyses, I have relied upon the average of *Value Line*
16 *Quarterly Forecast* forecasts and the consensus forecast reported by *Blue Chip*
17 *Financial Forecasts* of 4.5 percent.³⁰

18 **Q. WHY DO YOU USE LONG-TERM U.S. TREASURY YIELDS?**

19 A. The yields on long-term Treasury bonds match more closely with the perpetual
20 nature of common stock investments.³¹ Further, short-term rates are more volatile,
21 fluctuate widely and are subject to more random disturbances than long-term rates.
22 In short, long-term Treasury rates are preferred for these reasons and because long-
23 term rates are more appropriately matched to securities with an indefinite life or

24 ²⁹ *Blue Chip Financial Forecasts*, August 2015.

25 ³⁰ See Schedule D-4.8.

26 ³¹ Morin, p. 112.

1 long-term investment horizon.

2 **E. Explanation of the CAPM and Its Inputs.**

3 **Q. PLEASE EXPLAIN THE CAPM METHODOLOGY FOR ESTIMATING**
4 **THE COST OF EQUITY.**

5 A. Like the RPM, the CAPM is the sum of a risk-free rate plus a risk premium. And,
6 like the RPM, it quantifies the additional return required by investors for bearing
7 incremental risk. The CAPM was developed by William Sharpe and John Lintner
8 in the mid-1960s and is a common topic in college finance textbooks. The CAPM
9 provides a formal risk-return relationship premised on the idea that only market
10 risk matters, as measured by beta. The traditional version of CAPM is represented
11 by the formula:

12
$$[9] \quad k = R_f + \beta(R_m - R_f)$$

13 where k is the expected return, R_f is the risk-free rate (or zero beta asset), R_m is the
14 market return, $(R_m - R_f)$ is the market risk premium, and β is beta.

15 **Q. ARE THERE ALTERNATIVES TO THE TRADITIONAL CAPM?**

16 A. Yes, alternative versions of the CAPM have been developed that provide more
17 robust explanations of returns required by investors. A version of the CAPM
18 called the Empirical CAPM or ECAPM was developed to recognize that
19 estimations of R_f are higher than the return on long-term Treasuries. Dr. Roger
20 Morin discusses ECAPM at pages 189-191 of his book, *New Regulatory Finance*.
21 The ECPAM is represented as follows:

22
$$[10] \quad k = R_f + .25(R_m - R_f) + .75\beta(R_m - R_f)$$

23 *Duff & Phelps* also suggest a version of the CAPM in which a size premium
24 is included.³² This modified CAPM or MCAPM is represented as follows:

25
26 ³² *Duff & Phelps*, pp. 2-7.

1 [11] $k = R_f + \beta(R_m - R_f) + RP_s$

2 where k is the expected return, R_f is the risk-free rate (or zero beta asset), R_m is the
3 market return, $(R_m - R_f)$ is the market risk premium, β is beta, and RP_s is the size
4 premium. The MCAPM recognizes the CAPM is incomplete and does not fully
5 account for the higher returns that are needed on small company stocks. In other
6 words, the higher risks associated with smaller firms are not fully accounted for by
7 beta.³³

8 **Q. ARE THERE ANY OTHER CONCERNS ABOUT APPLYING THE CAPM**
9 **MODEL TO UTILITY STOCKS?**

10 A. Yes, mechanical application of the model may produce unreasonable results.
11 The traditional CAPM only captures a single measure of systematic risk as
12 measured by beta, but there are other forms of systematic risk priced by the market
13 such as company size. A size premium is necessary because, even after adjusting
14 for the beta risk of small stocks, they generally outperform larger stocks. Size may
15 just be a proxy for other risks. Nevertheless, the empirical evidence indicates that
16 beta alone does not measure the risk of smaller companies.³⁴

17 **Q. IF SIZE IS JUST A PROXY FOR OTHER RISKS, CAN'T YOU IGNORE**
18 **IT?**

19 A. No. Ignoring the fact that smaller companies are more risky leads to flawed and
20 understated cost of capital estimates.

21 **Q. IS FIRM SIZE A UNIQUE RISK?**

22 A. No. The firm size is a systematic risk factor and is an adjustment to the pure
23 CAPM.³⁵ Putting aside the empirical financial data, the need for a risk premium

24 ³³ Morningstar, *Ibbotson SBBI 2013 Valuation Yearbook*, pp. 85-88.

25 ³⁴ *Duff & Phelps*, pp. 2-5.

26 ³⁵ Pratt, Shannon P. and Roger J. Grabowski. *Cost of Capital: Applications and Examples*,

1 for size makes sense. Company size is a significant element of business risk for
2 which investors expect to be compensated through greater returns. As discussed
3 earlier, smaller companies are simply less able to cope with significant events that
4 impact sales, revenues, and earnings. For example, smaller companies face more
5 risk exposure to business cycles and economic conditions, both nationally and
6 locally. Additionally, the loss of revenues from a few larger customers would have
7 a greater effect on a small entity than on a much larger entity with a larger, more
8 diverse, customer base. Moreover, smaller companies are generally less diverse in
9 their operations and have less financial flexibility.

10 **Q. DID YOU EMPLOY EITHER OF THE ALTERNATIVE CAPM METHODS**
11 **YOU DISCUSSED (EQUATIONS 10 AND 11) AS PART OF YOUR**
12 **ANALYSIS?**

13 A. No.³⁶ Instead, I conducted a risk study to develop an indicated additional risk
14 premium for Liberty EDO. Based on this study, I added a risk premium to the
15 results of each method I use (the DCF, RPM, and the CAPM) as an alternative way
16 of dealing with the additional risk associated with Liberty EDO when compared to
17 the sample companies.

18 **Q. WHAT IS THE RISK-FREE RATE (R_f)?**

19 A. It is the return on an investment with no risk. The U.S. Treasury rate serves as the
20 basis for the risk-free rate because the yields are directly observable in the market
21 and are backed by the U.S. government. Practically speaking, short-term rates are
22 volatile, fluctuate widely and are subject to more random disturbances than long-
23

24 *Fourth Edition.* John Wiley and Sons, 2010, p. 56.

25 ³⁶ These two methods would produce an indicated cost of equity for my water proxy
26 group in the range of 9.7 percent to 11.7 percent with a mid-point of 10.7 percent, which
is greater than my overall estimate for my water proxy group of 10.0 percent.

1 term rates. In short, long-term Treasury rates are preferred for these reasons and
2 because long-term rates are more appropriately matched to securities with an
3 indefinite life or long-term investment horizon.

4 **Q. WHAT DO YOU ADOPT AS THE RETURN FOR THE RISK-FREE RATE?**

5 A. I use long-term expected Treasury bond rates as the measure of the risk-free return
6 for use with CAPM cost of equity estimates from two sources: the *Blue Chip*
7 *Financial Forecasts* and the *Value Line Quarterly Forecast*.³⁷ The appropriate
8 choice for the risk-free rate is the *expected* return for long-term Treasury
9 securities.³⁸ Thus, when determining an estimate of the risk-free rate, it is
10 appropriate to adopt a return that is no less than the expected return on the long-
11 term Treasury bond rate. Both of my CAPM estimates are based on expected
12 yields of the long-term Treasury rates for 2017 through 2019 (from *Blue Chip*
13 *Financial Forecasts* and *Value Line Quarterly Forecasts*).³⁹

14 **Q. WHAT IS BETA AND WHAT DOES IT MEASURE?**

15 A. Beta is a measure of the relative risk of a security in relation to the market.
16 In other words, it is a measure of the sensitivity of a security to the market as a
17 whole. This sensitivity is also known as systematic risk. It is estimated by
18 regressing a security's excess returns against a market portfolio's excess returns.
19 The slope of the regression line is the beta.

20 Beta for the market is 1.0. A security with a beta greater than 1.0 is
21 considered more risky than the market. A security with a beta less than 1.0 is
22 considered less risky than the market.

23 But there are computational problems surrounding beta. It depends on the

24 ³⁷ See Schedule D-4.9.

25 ³⁸ *Duff & Phelps* at 3-1.

26 ³⁹ See Schedule D-4.8.

1 return data, the time period used, its duration, the choice of the market index, and
2 whether annual, monthly, or weekly return figures are used. Betas are estimated
3 with error. Based on empirical evidence, high betas will tend to have a positive
4 error (risk is overestimated) and low betas will have a negative error (risk is
5 underestimated).⁴⁰

6 **Q. WHAT DID YOU USE AS THE PROXY OF THE BETA FOR LIBERTY**
7 **EDO?**

8 A. I used the average beta of the sample water utility companies. Betas were obtained
9 from *Value Line Investment Analyzer* (weekly data as of January 22, 2016). *Value*
10 *Line* is the source for estimated betas that I regularly employ. The average beta for
11 my water proxy group as shown on Schedule D-4.2 is 0.73. I should note that
12 because Liberty EDO is not publicly traded, it has no beta. In my expert opinion,
13 I strongly believe that both utilities, if it were publicly traded, would have a higher
14 beta than the sample water utility companies.

15 Smaller companies are just inherently more risky than larger companies.
16 *Morningstar* reports that when betas (a measure of market risk) are properly
17 estimated, betas are greater for small companies than for larger companies.⁴¹
18 *Morningstar* also finds that even after accounting for differences in beta risk, small
19 firms require an additional risk premium over and above the added risk premium
20 indicated by differences in beta risk.

21 **Q. PLEASE EXPLAIN THE MARKET RISK PREMIUM.**

22 A. The market-risk premium ($R_m - R_f$) is the return an investor expects to receive as
23 compensation for market risk. It is the expected market return minus the risk-free

24
25 ⁴⁰ Fama, Eugene F. and Kenneth R. French, "The Capital Asset Pricing Model: Theory
and Evidence," *Journal of Economic Perspectives*, Summer 2004, pp. 25-46.

26 ⁴¹ Morningstar, *Ibbotson SBBI 2012 Valuation Yearbook*, Chapter 7.

1 rate. Approaches for estimating the market risk premium can be historical or
2 prospective.

3 Since expected returns are not directly observable, historical realized returns
4 are often used as a proxy for expected returns on the basis that the historical market
5 risk premium follows what is known in statistics as a "random walk." If the
6 historical risk premium does follow the random walk, then one should expect the
7 risk premium to remain at its historical mean. Based on this argument, the best
8 estimate of the future market risk premium is the historical mean. *Duff & Phelps*
9 provides historical market returns for various asset classes from 1926 to 2014.
10 This publication also provides market risk premiums over U.S. Treasury bonds,
11 which makes it an excellent source for historical market risk premiums.

12 Prospective market risk premium estimation approaches necessarily require
13 examining the returns expected from common equities and bonds. One method
14 employs applying the DCF model to a representative market index such as the
15 *Value Line* 1700 stocks. The expected return from the DCF is measured for a
16 number of periods of time, and then subtracted from the prevailing risk-free rate for
17 each period to arrive at market risk premium for each period. The market risk
18 premium subsequently employed in the CAPM is the average market risk premium
19 of the overall period.

20 **Q. HOW MANY MARKET RISK PREMIUM ESTIMATES DID YOU**
21 **PREPARE?**

22 A. I used two market risk premium estimates: an historical market risk premium and a
23 current market risk premium.

24 **Q. HOW DID YOU ESTIMATE THE HISTORICAL MARKET RISK**
25 **PREMIUM?**

26 A. I used the *Duff & Phelps* measure of the average premium of the market over long-

1 term treasury securities from 1926 through 2014, which uses the S&P 500 market
2 index. The average historical market risk premium over long-term treasury
3 securities is 7.0 percent.

4 **Q. IS THE S&P 500 INDEX A LARGE COMPANY INDEX?**

5 A. Yes. The S&P 500 consists of the 500 largest companies and only approximately
6 20 percent of the S&P 500 would be considered Mid-Cap companies. Further,
7 there are no companies in the Low-Cap or Micro-Cap categories. Because it is
8 heavily weighted with Large-Cap companies, the S&P 500 is essentially a large
9 company index. *Morningstar* refers to the S&P 500 as a large company index and
10 cautions that "if using a large company index to calculate the equity risk premium,
11 an adjustment is usually needed to account for the different risk and return
12 characteristics of small stocks."⁴²

13 **Q. HOW DID YOU ESTIMATE THE CURRENT MARKET RISK PREMIUM?**

14 A. I derived a market risk premium by first using the DCF model to compute an
15 expected market return for each of the past 12 months using *Value Line's*
16 projections of the median dividend yield for the dividend yield in the DCF and an
17 average of the median EPS, DPS and BVPS growth on the *Value Line* 1700 stocks.
18 I then subtracted the historical monthly average 30-year Treasury yield for each
19 month from the expected market returns to arrive at the expected market risk
20 premiums. Finally, I averaged the computed market risk premiums to determine
21 the current market risk premium for the last 12 months, 9 months, 6 months, and
22 3 months. The data and computations are shown on Schedule D-4.10. The recent
23 3 month average current market risk premium is 8.81 percent. Estimates of the
24 current market risk premium have ranged from 8.45 percent to 9.72 percent over
25

26 ⁴² Morningstar, *Ibbotson SBBI 2014 Classic Yearbook*, p. 152.

1 the past 12 months. My recommended market risk premium is based on the recent
2 3-month average estimate of 8.81 percent and below the mid-point of the past 12-
3 month range.

4 **F. Financial Risk Adjustment.**

5 **Q. ARE YOU RECOMMENDING A FINANCIAL RISK ADJUSTMENT TO**
6 **ACCOUNT FOR DIFFERENCES IN LEVERAGE BETWEEN YOUR**
7 **WATER PROXY GROUP AND LIBERTY EDO?**

8 A. Yes. I have included a downward financial risk adjustment to the cost of equity of
9 30 basis points based upon the Hamada method⁴³ to account for the difference in
10 financial risk between Liberty EDO and the water proxy group.⁴⁴

11 **G. Company Specific Risk Premium.**

12 **Q. PLEASE DISCUSS YOUR COMPANY-SPECIFIC RISK PREMIUM.**

13 A. As I testified earlier, Liberty EDO is not directly comparable to the publicly traded
14 water utilities in my water proxy group. The characteristics associated with small
15 size, such as the lack of diversification, limited revenue and cash flow, relatively
16 small customer base, lack of investment liquidity, and earnings volatility, increase
17 the risk faced by smaller water and wastewater utilities over the risk associated
18 with the water proxy group.

19 Investment risk increases as the firm size decreases, all else remaining
20 constant. There is a great deal of empirical evidence that the firm size
21 phenomenon exists. Morningstar's *Ibbotson SBBI 2013 Valuation Yearbook*
22 (Chapter 7) reports that smaller companies have experienced higher returns that are
23 not fully explainable by their higher betas and that beta is inversely related to firm

24
25 ⁴³ "Effects of the Firm's Capital Structure on Systematic Risk of Common Stock,"
Journal of Finance, Vol. 27 No. 2, May 1972, pp. 435 – 453.

26 ⁴⁴ See Schedule D-4.14, page 1.

1 size. In other words, smaller companies not only have higher betas but higher
2 returns than larger ones. Even after accounting for differences in beta risk, small
3 companies require an additional risk premium over and above the added risk
4 premium indicated by differences in beta risk. The California PUC conducted a
5 study that showed smaller water utilities are more risky than larger ones.⁴⁵ It is
6 really simply common financial sense that investors require higher returns on small
7 company stocks than on large company stocks.

8 I have included in Schedule D-4.15 the results of a *Morningstar* study using
9 annual data reporting the size premium based upon firm size and return data
10 (i) provided in *Duff & Phelps 2015 Valuation Handbook, Guide to Cost of Capital*,
11 and (ii) contained in Dr. Thomas M. Zepp's 2003 article in *The Quarterly Review*
12 *Economic and Finance*. Based on these sources, I have estimated that a small
13 company risk premium in the range of 99 to 325 basis points is appropriate for
14 Liberty EDO.

15 **Q. HAVE YOU ALSO CONDUCTED A COMPARATIVE RISK STUDY TO**
16 **DEVELOP AN INDICATED RISK PREMIUM FOR LIBERTY EDO?**

17 A. Yes. Attached as **Exhibit TJB-COC-DT2** is the comparative risk study I prepared
18 for Liberty EDO. To conduct my risk studies, I started by computing the 5-year
19 historical operating margin, coefficient of variation of operating margin, and
20 coefficient of variation of ROE for each utility. Operating margin is a measure of
21 profitability. The co-efficient of variation of operating margin and co-efficient of
22 variation in ROE are measures of earnings variability. Both of these metrics are
23 highly correlated with size and risk. Next, I cross-referenced these metrics with
24

25 ⁴⁵ Staff Report on Issues Related to Small Water Utilities, June 10, 1991 and CPUC
26 Decision 92-03-093.

1 data published by *Duff & Phelps*⁴⁶ and identified the corresponding market
2 portfolio beta for the utility and for my water proxy group. I then computed the
3 relative difference in beta between each utility and my proxy group. Assuming that
4 the relative difference in the market portfolio beta for the all publicly traded
5 companies is the same for publicly traded water utilities, I then computed an
6 implied beta for each utility using the difference in portfolio betas.⁴⁷ Finally, I
7 used the CAPM to compute the indicated cost of equity for each utility and
8 compared the results to the CAPM results for my water proxy group.⁴⁸

9 **Q. BASED ON YOUR COMPARATIVE RISK STUDY, WHAT ADDITIONAL**
10 **RISK PREMIUM IS INDICATED?**

11 A. The indicated risk premium for Liberty EDO is in the range of 200 to 260 basis
12 points.

13 **Q. WHAT COMPANY SPECIFIC-RISK PREMIUMS DO YOU RECOMMEND**
14 **FOR LIBERTY EDO?**

15 A. I added an upward risk premium of 230 basis points to the results of my models,
16 which is near the middle of the range of my risk premium estimates. I also
17 recommend a 30 basis point downward adjustment for the difference in financial
18 risk between Liberty EDO and the water proxy group. The net upward adjustment
19 to the indicated cost of equity is 200 basis points (230 basis points less 30 basis
20 points). My recommended 12.0 percent return on equity is 200 basis points above
21 the midpoint of the overall results for the water proxy group of 10.0 percent, which
22 reflects the substantial difference between Liberty EDO and the sample companies.
23

24 ⁴⁶ *Duff & Phelps*, Exhibits D-1 and D-2.

25 ⁴⁷ See page 1 of **Exhibit TJB-COC-DT2**.

26 ⁴⁸ See page 2 of **Exhibit TJB-COC-DT2**.

1 **H. Summary and Conclusions.**

2 **Q. HAVE YOU PREPARED A SCHEDULE THAT SUMMARIZES YOUR**
3 **EQUITY COST ESTIMATES AND PRESENTS YOUR**
4 **RECOMMENDATIONS?**

5 A. Yes. The equity cost estimates and my recommendations are summarized in
6 Schedule D-4.1 for Liberty EDO.

7 In the first part of my analysis, I applied two versions of the constant growth
8 DCF model; one using historical and forecast growth and one using only forecast
9 growth. The DCF models produce an indicated equity cost for the water proxy
10 group in the range of 9.0 percent to 9.5 percent.⁴⁹

11 In the second part of my analysis, I applied a RPM. I used historical annual
12 total market returns for the water proxy group and historical average annual
13 average long-term treasury yields to develop an equity risk premium to which I
14 added the expected long-term treasury to estimate the current cost of equity.
15 My RPM produces an indicated cost of equity of 10.5 percent for the water proxy
16 group.⁵⁰

17 In the third part of my analysis, I applied two versions of the CAPM –
18 a historical risk premium CAPM and a current market risk premium CAPM.
19 The CAPM analyses produce an indicated cost of equity in the range of 9.6 percent
20 to 10.9 percent for the water proxy group.⁵¹

21 The overall results on the DCF, CAPM, and RPM analyses for the water
22 proxy group are in the range of 9.7 percent to 10.3 percent with a mid-point of
23 10.0 percent.

24 ⁴⁹ See Schedule D-4.7, pages 1 and 2.

25 ⁵⁰ See Schedule D-4.9.

26 ⁵¹ See Schedule D-4.11.

1 In the fourth part of my analysis, I determine that a downward adjustment of
2 30 basis points is required to account for the difference in financial risk between
3 the water proxy group and Liberty EDO.

4 In the fifth part of my analysis, I reviewed the financial literature on the
5 small firm size effect and determined that an appropriate risk premium for small
6 utilities like Liberty EDO that should be applied to the DCF, RPM, and CAPM
7 results is the range of 99 to 367 basis points.⁵²

8 In the sixth part of my analysis, I conducted a comparative risk study using
9 market based information and financial data for the water proxy group and Liberty
10 EDO. Based upon my comparative risk study using market based information and
11 financial data for the water proxy group and Liberty EDO, I determined the
12 indicated risk premium for Liberty EDO falls in the range of 200 to 260 basis
13 points.⁵³ I recommend a risk premium of 230 basis points. Using my
14 recommended risk premium of 230 basis points, the DCF models produce an
15 indicated equity cost for Liberty EDO in the range of 11.3 percent to 11.8 percent.
16 My RPM produces an indicated cost of equity of 12.8 percent for Liberty EDO.
17 My CAPM analyses produce an indicated cost of equity in the range of 11.9
18 percent to 13.2 percent. After adjusting for the difference in financial risk, the
19 range of cost of equity estimates falls in the range of 11.7 to 12.3 percent with a
20 midpoint of 12.0 percent.⁵⁴

21 **Q. WHAT EQUITY RETURN DO YOU RECOMMEND?**

22 A. I am recommending a cost of equity of *no less* than 12.0 percent for Liberty EDO.
23

24 ⁵² See Schedule D-4.12.

25 ⁵³ See **Exhibit TJB-COC-DT2**.

26 ⁵⁴ See Schedule D-4.1, page 1.

1 **VI. FAIR VALUE RATE OF RETURN.**

2 **Q. HOW HAS THE COMMISSION ESTIMATED THE FVROR?**

3 A. In several recent cases, the Commission has determined the FVROR by applying
4 the market return on equity and the cost of debt to the utility's original cost rate
5 base ("OCRB") based on the percent of equity and debt in the utility's proposed
6 capital structure. The Commission then applies a different rate, traditionally one
7 half of the real risk-free rate, to what has been referred to as the "fair value
8 increment."⁵⁵ The fair value increment is the difference between the original cost
9 rate base ("OCRB") and the Company's proposed FVRB. The FVROR is then the
10 sum of the returns on each of the three components: (1) equity capital, (2) debt
11 capital, and (3) the fair value increment, weighted by the percentage of each in the
12 FVRB.

13 **Q. WHAT DOES THE FAIR VALUE INCREMENT REPRESENT?**

14 A. The fair value increment represents the appreciation in the value of the assets to
15 their current value from the value at which they entered service. Therefore, the sum
16 of the OCRB and the fair value increment is supposedly meant to represent the
17 total fair value of the utility's property.⁵⁶

18 **Q. DO YOU AGREE WITH THE COMMISSION'S TYPICAL APPROACH TO**
19 **SETTING THE RETURN ON THE FAIR VALUE INCREMENT?**

20 A. Not really, the rationale is theoretically flawed.

21 **Q. WHAT'S FLAWED, MR. BOURASSA?**

22 A. The underlying premise of the Commission's approach has to be that investors
23 expect a lower return on some of their investment because of inflation. This does
24 not jive with reality. An investor wouldn't accept a rate of return that is less than

25 ⁵⁵ Decision No. 70665 (December 24, 2008) at 32.

26 ⁵⁶ Decision No. 70665 (December 24, 2008) at 32.

1 the cost of debt for an equity position in *any* investment. At the very least, the
2 market expectation is that investments that are not risk-free should earn a rate of
3 return that exceeds the real risk-free rate. The cost of equity in the instant case is
4 based upon market values of investments and market value is akin to the fair value.
5 Putting aside any inflation component that may be included in the cost of equity
6 estimates from my cost of equity analysis, the indicated cost of equity far exceeds
7 that of the risk-free rate. Furthermore, the application of 50 percent of the real
8 risk-free rate as a measure of the cost of equity on the fair value increment is
9 completely subjective and has no basis in financial theory.

10 **Q. WHAT RATE OF RETURN SHOULD BE APPLIED TO THE FAIR VALUE**
11 **INCREMENT?**

12 A. There shouldn't be a fair value increment to apply a rate of return to in a rate case.
13 It's a construct, a mythical object created to dampen the impact of using RCN in
14 the determination of rate base. I believe we should determine rate base, and we
15 should determine a rate of return, then we should use them to set rates.

16 **Q. WELL THEN, HOW HAVE YOU ESTIMATED THE FVROR IN THE**
17 **INSTANT CASE?**

18 A. Despite my disagreement on how the rate of return on the fair value increment is
19 determined, I have estimated the FVROR using the methodology the Commission
20 has approved in recent cases.⁵⁷ Liberty EDO needs considerable rate relief and this
21 is no really the place to take a stand against the flaws in the Commission's prior
22 methodology.

23 **Q. FAIR ENOUGH, MR. BOURASSA. CAN YOU EXPLAIN HOW YOU**
24 **ESTIMATED THE REAL RISK-FREE RETURN?**

25
26 ⁵⁷ See Exhibit TJB-COC-DT3, page 1.

1 A. As shown on page 2 of **Exhibit TJB-COC-DT3**, my estimate of the nominal risk-
2 free rate of return is the average of the 2017-2021 projected yield on 30-year U.S.
3 Treasury bonds of 4.5 percent as reported in the *Blue Chip Financial Forecasts*.⁵⁸
4 I then adjusted the nominal risk-free rate of 4.7 percent by the rate of inflation,
5 which I estimated to be 2.0 percent, which is the average of the 2017-2021 rate of
6 growth in the consumer price index ("CPI") in the *Blue Chip Financial*
7 *Forecasts*.⁵⁹ The resulting real risk-free rate is then 2.5 percent (4.5 percent less
8 2.0 percent).

9 **Q. AND YOU APPLIED THE COMMISSION'S METHODOLOGY TO**
10 **ESTIMATE THE FVROR?**

11 A. Yes. As shown on page 1 of **Exhibit TJB-COC-DT3**, I calculated the difference
12 between the Liberty EDO's OCRB and the Company's proposed FVRB, which
13 includes a 50 percent weight on original cost. That difference represents the
14 appreciation in the value of the assets based on the "market value" of the OCRB, in
15 other words - the "fair value increment." The weighted average cost of debt and
16 the market cost of equity were applied to the OCRB. I then applied one-half of my
17 real risk-free rate to the fair value increment and determined a weighted cost of
18 capital for the FVRB.

19 **Q. WHAT IS THE RESULTING FVROR?**

20 A. 6.92 percent.

21 **Q. DOES THAT CONCLUDE YOUR DIRECT TESTIMONY ON COST OF**
22 **CAPITAL?**

23 A. Yes.

25 ⁵⁸ *Blue Chip Financial Forecasts*, December 2015.

26 ⁵⁹ *Id.*

TJB-COC-DT1

Shares of companies in the Water Utility Industry performed well since our last report. This marks the second-straight impressive quarterly performance.

Strong equity prices have resulted in low yields for members of the group. Indeed, income-oriented investors may be disappointed that the average yield for this industry is now the same as the median for the typical dividend-paying stock in the *Value Line* universe.

Each water company is involved in a substantial building program. Most of the spending is on replacing and modernizing existing pipelines, valves, and wastewater facilities. These programs should last well past late decade.

External financing will most likely continue to be needed to fund these expenditures. Overall, most water utilities are in decent financial health, however. Much of this can be attributed to regulators being relatively reasonable in rate cases. There is a general understanding that underinvestment in the past has led to a deterioration in the nation's water infrastructure and billions of dollars in capital will be needed to improve the system.

Larger firms have been buying up lots of small municipally owned water districts that don't have the financial wherewithal to perform the required upgrades. Because there are significant redundancies in the industry, the acquiring firms can usually generate better returns with the purchased assets.

Despite the Federal Reserve's recent rate hike, yields on income-generating nondistressed securities of all types, remain very low, leaving income investors with difficult choices.

Yields On Water Stocks Are Low

Historically, sought out for above-average yields and strong dividend growth prospects, water utility equities currently do not offer any premium in the form of current income. Since our last report in mid-October, the shares of the nine members of the group appreciated by 4.9%, versus 1.9% for the S&P 500 Index. We can only speculate that the rash of uneasiness in world markets sent investors into safe sectors of the economy, such as the water industry.

Large Construction Programs

For years, insufficient funding was made to properly maintain America's water infrastructure, leading to a general state of disrepair. At some point, executives and regulators realized that massive amounts of money would have to be spent to replace aging pipes, valves, and other equipment. Thus, over the past five to 10 years, water utilities, in cooperation with state regulators, have been involved in major building projects.

External Financing Is Required

Internally generated funds are not sufficient to fund the amount of construction now underway. Every member of the industry has had to turn to the debt and equity markets to raise needed capital. Fortunately, the company's balance sheets have remained in relatively solid

INDUSTRY TIMELINESS: 34 (of 97)

condition. Of the nine firms, two have Financial Strength ratings of an A, two a B++, and five a B+. (The average rating for the typical *Value Line* stock is B+.)

With the stocks having done well, now may be a good time to tap the equity markets. In the recent past, many companies have relied mostly on debt, due to the prolonged low interest rate environment. One feature of the water industry is that it isn't big in terms of market capitalization. In fact, we think that the rarity of water stocks is probably one of the reasons they tend to trade at a premium. For example, the market capitalization of Con Edison alone is only modestly less than the total of the entire water industry combined. The scarcity of water stocks is one of the reasons its yield is 2.4%, while the electric industry's yield is 3.8%, 140 basis points higher.

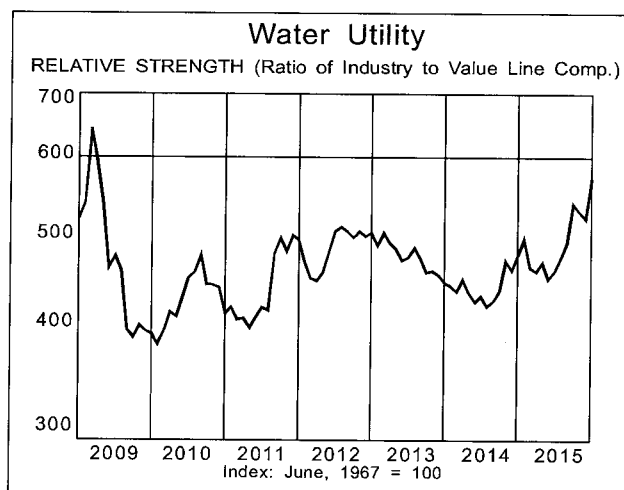
Consolidation

The overwhelming majority of water districts in the U.S. are small and run by local municipal-water districts. Include the small micro-districts in the mix, and the number of different water authorities rises to over 100,000. As the infrastructure ages and the EPA increases the number of costly mandates, some are selling themselves to better capitalized, more-professional investor-owned companies. The arrangements have proved successful in most cases because of the large amount of redundancies that exist in this industry. The smaller district get the capital spending they need to update their systems, and the buyers are able to use their resources and expertise to improve the facilities while generating better returns on the assets. We wouldn't be surprised if this trend picked up in the future.

Conclusion

Of the nine stocks in the industry, three are ranked to outperform the broader market averages in the year ahead; *American States Water*, *American Water Works*, and *The York Water Company*. Since many investors in this sector are more buy-and-hold types, they should be aware that none of these three issues offer attractive long-term appeal, however.

James A. Flood



AMER. STATES WATER NYSE-AWR										RECENT PRICE	40.79	P/E RATIO	24.9 (Trailing: 24.7 Median: 20.0)	RELATIVE P/E RATIO	1.44	DIV'D YLD	2.3%	VALUE LINE																													
TIMELINESS	2	Raised 6/5/15	High: 13.4	17.3	21.9	23.1	21.0	19.4	19.8	18.2	24.1	33.1	38.7	44.1	35.8				Target Price	2018	2019	2020																									
SAFETY	2	Raised 7/20/12	Low: 10.4	12.2	15.1	16.8	13.5	14.9	15.6	15.3	17.0	24.0	27.0																																		
TECHNICAL	3	Lowered 11/27/15	LEGENDS 125 x Dividends p sh divided by Interest Rate Relative Price Strength 2-for-1 split 9/13 Options: Yes Shaded area indicates recession																																												
BETA	.70	(1.00 = Market)																																													
2018-20 PROJECTIONS																																															
Price	50	Gain (+25%)																																													
High	50	Low (-15%)																																													
Low	35	Ann'l Total Return																																													
Insider Decisions																																															
F	M	A	M	J	J	A	S	O																																							
to Buy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																										
Options	0	1	0	1	0	1	0	2	3																																						
to Sell	0	1	0	0	3	1	1	5	3																																						
Institutional Decisions																																															
1Q2015	2Q2015	3Q2015																																													
to Buy	86	80	91																																												
to Sell	93	82	89																																												
Hld's(000)	23637	23707	23779																																												
Percent shares traded																						24	16	8																							
1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	© VALUE LINE PUB. LLC				18-20																									
6.45	6.08	6.53	6.89	6.99	6.81	7.03	7.88	8.75	9.21	9.74	10.71	11.12	12.12	12.19	12.17	12.45	12.35	Revenues per sh		15.00																											
1.13	1.10	1.26	1.27	1.04	1.11	1.32	1.45	1.65	1.69	1.70	2.11	2.13	2.48	2.65	2.67	2.75	2.90	"Cash Flow" per sh		3.45																											
.60	.64	.67	.67	.39	.53	.66	.67	.81	.78	.81	1.11	1.12	1.41	1.61	1.57	1.60	1.70	Earnings per sh ^A		2.15																											
.43	.43	.43	.44	.44	.44	.45	.46	.48	.50	.51	.52	.55	.64	.76	.83	.87	.92	Div'd Decl'd per sh ^B		1.15																											
2.15	1.51	1.59	1.34	1.88	2.51	2.12	1.95	1.45	2.23	2.09	2.12	2.13	1.77	2.52	1.89	2.20	2.15	Cap'l Spending per sh		2.20																											
5.91	6.37	6.61	7.02	6.98	7.51	7.86	8.32	8.77	8.97	9.70	10.13	10.84	11.80	12.72	13.24	13.00	13.85	Book Value per sh		14.85																											
26.87	30.24	30.24	30.36	30.42	33.50	33.60	34.10	34.46	34.60	37.06	37.26	37.70	38.53	38.72	38.29	36.50	36.50	Common Shs Outst'g ^C		37.00																											
17.1	15.9	16.7	18.3	31.9	23.2	21.9	27.7	24.0	22.6	21.2	15.7	15.4	14.3	17.2	20.1	24.7	25.1	Avg Ann'l P/E Ratio		20.5																											
.97	1.03	.86	1.00	1.82	1.23	1.17	1.50	1.27	1.36	1.41	1.00	.97	.91	.97	1.06	1.25	1.25	Relative P/E Ratio		1.30																											
4.2%	4.2%	3.9%	3.6%	3.5%	3.6%	3.1%	2.5%	2.5%	2.9%	2.9%	3.0%	3.2%	3.1%	2.7%	2.6%	2.2%	2.2%	Avg Ann'l Div'd Yield		2.7%																											
CAPITAL STRUCTURE as of 9/30/15																																															
Total Debt \$325.9 mill. Due in 5 Yrs \$41.6 mill.																																															
LT Debt \$325.6 mill. LT Interest \$21.5 mill. (41% of Cap'l)																																															
Leases, Uncapitalized: Annual rentals \$0.4 mill.																																															
Pension Assets-12/14 \$140.6 mill. Oblig. \$185.2 mill.																																															
Pfd Stock None.																																															
Common Stock 36,728,248 shs. as of 11/2/15																																															
MARKET CAP: \$1.5 billion (Mid Cap)																																															
CURRENT POSITION																																															
(\$mill.)																																															
Cash Assets																																															
Accts Receivable																																															
Other																																															
Current Assets																																															
Accts Payable																																															
Debt Due																																															
Other																																															
Current Liab.																																															
ANNUAL RATES of change (per sh)																																															
Past 10 Yrs.																																															
Past 5 Yrs.																																															
Est'd '12-'14 to '18-'20																																															
Revenues																																															
"Cash Flow"																																															
Earnings																																															
Dividends																																															
Book Value																																															
QUARTERLY REVENUES (\$mill.)																																															
Cal-endar																																															
Mar.31																																															
Jun.30																																															
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QUARTERLY DIVIDENDS PAID ^B																																															
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Mar.31																																															
Jun.30																																															
Sep.30																																															
Dec.31																																															
Full Year																																															

BUSINESS: American States Water Co. operates as a holding company. Through its principal subsidiary, Golden States Water Company, it supplies water to 258,191 customers in 75 communities and 10 counties. Service areas include the greater metropolitan areas of Los Angeles and Orange Counties. The company also provides electric utility services to 23,716 customers in the city of Big Bear Lake and in areas of San Bernardino County. Sold Chapparral City Water of Arizona (6/11). Has 707 employees. Blackrock, Inc. owns 9.8% of out. shares; Vanguard, 8.5%; off. & dir. 1.5%. (4/15 Proxy). Chairman: Lloyd Ross. President & CEO: Robert J. Sprowls. Inc. CA. Addr: 630 East Foothill Boulevard, San Dimas, CA 91773. Tel: 909-394-3600. Internet: www.aswater.com.

Shares of American States Water have not performed well lately. Since our October report, the equity of the company has declined 1.3% compared to an average gain of 4.9% for the typical water utility, and a 1.9% rise in the S&P 500. Indeed, only two out of the nine members in the group posted losses, and each one has significant operations in California.

Despite the ongoing drought, we expect earnings growth to be healthy in 2016. In California, petitions for higher rates are made triennially. So, this year is important as we expect the California Public Utility Commission to be reasonable regarding the Golden State Water subsidiary's request for higher tariffs. Based on this assumption, and a greater contribution from ASUS (see below), we think the company's bottom line should rise a solid 6%, to \$1.70 a share.

Nonregulated businesses may play a more important role in the future. Through its ASUS subsidiary, the company has been operating the water systems at several U.S. Army bases. Responsible for an estimated 15% of income, this percentage could rise as the government pri-

vativizes more of these facilities. We think ASUS should win more contracts, which are for a 50-year period. This could provide a boost to earnings because returns on equity in this sector are not regulated.

All in all, American States is in good shape. Like all water utilities, Golden State has to invest heavily in upgrading its antiquated water infrastructure. With a strong balance sheet, however, we think the financial integrity of the firm will be maintained through the late decade. Another benefit is operating in California, as the regulatory environment has improved significantly in years past.

Shares of American States are ranked to outperform the broader market averages in the year ahead. This equity might only be suitable for momentum accounts, however. That's because many water utility investors traditionally take a long-term view of their holdings. From this perspective, the stock looks more than fully valued. Indeed, even with the recent weakness in the stock price, AWR's total return potential is still substantially lower than the *Value Line* median.

James A. Flood
January 15, 2016

AQUA AMERICA NYSE-WTR				RECENT PRICE	P/E RATIO	Trailing: 23.7 Median: 23.0	RELATIVE P/E RATIO	DIV'D YLD	2.5%	VALUE LINE
TIMELINESS	3	Lowered 5/24/13	High: 14.8	23.65	23.2	23.7	1.34	2.5%		
SAFETY	2	Raised 4/20/12	Low: 11.3							
TECHNICAL	3	Raised 10/23/15	23.4							
BETA	.75	(1.00 = Market)	23.8							
2018-20 PROJECTIONS				21.3	17.6	17.2	18.4	19.0	21.5	28.1
Price	45	Gain (+50%)	14.0	15.1	9.8	12.3	13.2	15.4	16.8	20.6
Ann'l Total Return	13%	3%	16.1	17.6	17.2	18.4	19.0	21.5	28.1	28.2
High	45		23.4	23.8	21.3	17.6	17.2	18.4	19.0	21.5
Low	30		14.0	15.1	9.8	12.3	13.2	15.4	16.8	20.6
Insider Decisions				23.4	23.8	21.3	17.6	17.2	18.4	19.0
F M A M J J A S O										
to Buy	0	0	0	0	0	0	0	0	0	0
Options	0	0	0	0	0	0	0	0	0	0
to Sell	1	1	1	1	1	1	1	1	1	1
Institutional Decisions				23.4	23.8	21.3	17.6	17.2	18.4	19.0
1Q2015	153	156	166							
to Buy	153	156	166							
to Sell	133	145	138							
Hid's(000)	81133	82530	84833							
LEGENDS				23.4	23.8	21.3	17.6	17.2	18.4	19.0
1.60 x Dividends p sh										
divided by Interest Rate										
Relative Price Strength										
5-for-4 split 12/03										
4-for-3 split 12/05										
5-for-4 split 9/13										
Options: Yes										
Shaded area indicates recession										
Percent shares traded				23.4	23.8	21.3	17.6	17.2	18.4	19.0
15										
10										
5										
© VALUE LINE PUB. LLC				23.4	23.8	21.3	17.6	17.2	18.4	19.0
1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1.93	1.97	2.16	2.28	2.38	2.78	3.08	3.23	3.61	3.71	3.93
.58	.61	.69	.76	.77	.87	.97	1.01	1.10	1.14	1.29
.33	.37	.41	.43	.46	.51	.57	.56	.57	.58	.62
.22	.23	.24	.26	.28	.29	.32	.35	.38	.41	.44
.72	.93	.87	.96	1.06	1.23	1.47	1.64	1.43	1.58	1.66
2.74	3.08	3.32	3.49	4.27	4.71	5.04	5.57	5.85	6.26	6.50
133.50	139.78	142.47	141.49	154.31	158.97	161.21	165.41	166.75	169.21	170.61
21.2	18.2	23.6	23.6	24.5	25.1	31.8	34.7	32.0	24.9	23.1
1.21	1.18	1.21	1.29	1.40	1.33	1.69	1.87	1.70	1.50	1.54
3.0%	3.3%	2.5%	2.5%	2.5%	2.3%	1.8%	1.8%	2.1%	2.8%	3.1%
CAPITAL STRUCTURE as of 9/30/15				23.4	23.8	21.3	17.6	17.2	18.4	19.0
Total Debt \$1756.7 mill.										
LT Debt \$1681.1 mill.										
LT Interest \$74.0 mill.										
(49% of Cap'l)										
Pension Assets-12/14 232.4 mill.				23.4	23.8	21.3	17.6	17.2	18.4	19.0
Oblig. \$281.2 mill.										
Pfd Stock None				23.4	23.8	21.3	17.6	17.2	18.4	19.0
Common Stock 176,428,025 shares										
as of 10/23/15										
MARKET CAP: \$5.2 billion (Mid Cap)				23.4	23.8	21.3	17.6	17.2	18.4	19.0
CURRENT POSITION (\$MILL.)				23.4	23.8	21.3	17.6	17.2	18.4	19.0
2013	2014	9/30/15								
Cash Assets	5.1	4.1	4.1							
Receivables	95.4	97.0	111.1							
Inventory (AvgCst)	11.4	12.8	12.9							
Other	59.8	38.6	40.2							
Current Assets	171.7	152.5	168.3							
Accts Payable	65.8	60.0	45.1							
Debt Due	123.0	70.0	75.6							
Other	78.1	95.3	95.3							
Current Liab.	266.9	225.3	216.0							
ANNUAL RATES				23.4	23.8	21.3	17.6	17.2	18.4	19.0
Past 10 Yrs.	Past 5 Yrs.	Est'd '12-'14								
of change (per sh)										
Revenues	5.5%	3.0%	5.5%							
"Cash Flow"	8.0%	8.0%	7.0%							
Earnings	8.5%	13.0%	7.5%							
Dividends	7.5%	7.0%	9.5%							
Book Value	7.5%	6.5%	5.5%							
QUARTERLY REVENUES (\$ mill.)				23.4	23.8	21.3	17.6	17.2	18.4	19.0
Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year					
2012	164.0	191.7	214.6	187.5	757.8					
2013	180.0	195.7	204.3	188.6	768.6					
2014	182.7	195.3	210.5	191.4	779.9					
2015	190.3	205.8	221.1	197.8	815					
2016	192	208	225	200	825					
EARNINGS PER SHARE ^				23.4	23.8	21.3	17.6	17.2	18.4	19.0
Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year					
2012	.15	.24	.29	.19	.87					
2013	.26	.30	.36	.24	1.16					
2014	.24	.31	.38	.27	1.20					
2015	.27	.32	.38	.28	1.25					
2016	.28	.34	.42	.31	1.35					
QUARTERLY DIVIDENDS PAID ^				23.4	23.8	21.3	17.6	17.2	18.4	19.0
Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year					
2012	.132	.132	.132	.14	.54					
2013	.14	.14	.152	.152	.58					
2014	.152	.152	.165	.165	.63					
2015	.165	.165	.178	.178	.69					
2016										

(A) Diluted eqs. Excl. nonrec. gains (losses): '99, (9%); '00, 2%; '01, 2%; '02, 4%; '03, 3%; '12, 18%. Excl. gain from disc. operations: '12, 7%; '13, 9%; '14, 11%. May not sum due to rounding.

Next earnings report due late February.
(B) Dividends historically paid in early March, June, Sept. & Dec. ■ Div'd. reinvestment plan available (5% discount).

(C) In millions, adjusted for stock splits.

Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	60
Earnings Predictability	100

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Shares of Aqua America have been on a roll. Like several other water utility stocks, this equity has turned in an excellent performance since our mid-October report, increasing roughly 11% in value. In contrast, the typical stock in the group rose about 5%, while the S&P 500 gained only 2%, over the same period.

Our earnings estimates are unchanged. Last year's fourth-quarter profits should probably be similar to 2014's. For the full year, we expect Aqua's share net to rise a decent 4%. (Comparisons on a year-over-year basis would look better if not for an unusual gain posted in 2014.) In 2016, results should be more impressive as Aqua should benefit from a combination of factors, including synergies derived from many of its acquisitions, rate relief, and relative constructive regulatory treatment. All told, we think a solid 7% rise in earnings per share is possible.

Aqua is one of the nation's best-run water utilities. There may be only nine members in this industry, but the company has some compelling attributes. For starters, it is one of only a handful of firms that has a meaningful market capitaliza-

tion (\$5.2 billion). Furthermore, despite a large capital budget, the company's finances are solid. In addition, there are thousands of small municipally-owned water districts that can be purchased by larger water companies like Aqua and made more profitable due to the large amount of redundancies prevalent in the industry. Acquisitions are usually small, so the process is ongoing. For example, the company made 16 purchases last year alone. We are not sure how many will eventually be made, but we expect the customer base to be increased by 1.5%-2% annually, via this method.

We think this stock has lost some of its appeal. A water utility is attractive in part for its yield and dividend growth prospects. Due to the recent run-up in WTR's price, its yield is now only 10 basis points higher than the Value Line median. So, while Aqua remains a very sound company, we think that the market may be placing too high a premium on its shares. Also, with so many positives factored into the current price, we think the equity may be vulnerable to any bad news.

James A. Flood

January 15, 2016

VALUE LINE

	Target 2018	Price 2019	Range 2020
			64
			48
			40
			32
			24
			20
			16
			12
			8
			6
TOT. RETURN 12/15			
THIS STOCK	VL ARITH* INDEX		
-2.7	-6.9		
38.5	37.7		
46.1	52.1		

for splits.	Company's Financial Strength	B++
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James A. Flood January 15, 2016

Company's Financial Strength	B++
Stock's Price Stability	95
Price Growth Persistence	35
Earnings Predictability	85

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CONNECTICUT WATER NDQ-CTWS										RECENT PRICE	38.47	P/E RATIO	19.2	(Trailing: 18.7 Median: 21.0)	RELATIVE P/E RATIO	1.11	DIV'D YLD	2.8%	VALUE LINE				
TIMELINESS	3	Lowered 11/21/14	High: 29.8	28.2	27.7	25.6	29.0	26.4	27.9	29.1	32.8	36.4	37.5	39.9									
SAFETY	3	New 1/18/13	Low: 23.8	21.9	20.3	22.4	19.3	17.3	20.0	23.3	26.2	27.8	31.0	33.2									
TECHNICAL	4	Lowered 1/1/16	LEGENDS										Target Price Range 2018 2019 2020										
BETA	.65	(1.00 = Market)	130 x Dividends p sh divided by Interest Rate ... Relative Price Strength Options: No Shaded area indicates recession																				
2018-20 PROJECTIONS																							
Price	50	Gain	Ann'l Total																				
High	50	(+30%)	10%																				
Low	35	(-10%)	1%																				
Insider Decisions																							
F	M	A	M	J	J	A	S	O															
to Buy	0	0	0	0	0	0	0	0	0														
Options	0	0	0	0	0	0	0	0	0														
to Sell	0	0	0	0	0	0	0	0	0														
Institutional Decisions																							
10/2015	20/2015	30/2015	Percent																				
to Buy	37	54	50																				
to Sell	40	37	34																				
Hld's(000)	4289	4391	4527																				
1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	© VALUE LINE PUB. LLC 18-20					
5.87	5.70	5.93	5.77	5.91	6.04	5.81	5.68	7.05	7.24	6.93	7.65	7.93	9.47	8.29	8.45	8.60	9.00	Revenues per sh	12.90				
1.65	1.73	1.78	1.78	1.89	1.91	1.62	1.52	1.90	1.95	1.93	2.04	2.11	2.64	2.63	2.97	3.25	3.40	"Cash Flow" per sh	3.75				
1.03	1.09	1.13	1.12	1.15	1.16	.88	.81	1.05	1.11	1.19	1.13	1.13	1.53	1.66	1.92	2.05	2.10	Earnings per sh ^A	2.25				
.79	.79	.80	.81	.83	.84	.85	.86	.87	.88	.90	.92	.94	.96	.98	1.01	1.05	1.09	Div'd Decl'd per sh ^B	1.30				
1.42	1.43	1.86	1.98	1.49	1.58	1.96	1.96	2.24	2.44	3.28	3.06	2.61	2.79	3.02	4.11	3.60	5.80	Cap'l Spending per sh	3.00				
8.61	8.92	9.25	10.06	10.46	10.94	11.52	11.60	11.95	12.23	12.67	13.05	13.50	20.95	17.92	18.83	19.95	21.15	Book Value per sh ^D	23.35				
7.26	7.28	7.65	7.94	7.97	8.04	8.17	8.27	8.38	8.46	8.57	8.68	8.76	8.85	11.04	11.12	11.20	11.35	Common Shs Outst'g ^C	12.00				
18.2	18.2	21.5	24.3	23.5	22.9	28.6	29.0	23.0	22.2	18.4	20.7	23.0	19.4	18.4	17.5	17.5		Avg Ann'l P/E Ratio	19.0				
1.04	1.18	1.10	1.33	1.34	1.21	1.52	1.57	1.22	1.34	1.23	1.32	1.44	1.23	1.03	.92	.89		Relative P/E Ratio	1.20				
4.2%	4.0%	3.3%	3.0%	3.0%	3.1%	3.4%	3.6%	3.6%	3.6%	4.1%	3.9%	3.6%	3.2%	3.2%	3.0%	2.9%		Avg Ann'l Div'd Yield	3.1%				
CAPITAL STRUCTURE as of 9/30/15										47.5	46.9	59.0	61.3	59.4	66.4	69.4	83.8	91.5	94.0	102	Revenues (\$mill)	155	
Total Debt \$190.7 mill. Due in 5 Yrs \$19.3 mill.										7.2	6.7	8.8	9.4	10.2	9.8	9.9	13.6	18.3	21.3	23.0	23.5	Net Profit (\$mill)	27.0
LT Debt \$176.7 mill. LT Interest \$7.0 mill. (44% of Cap'l)										--	23.5%	32.4%	27.2%	19.5%	35.2%	41.3%	32.0%	28.0%	14.4%	5.0%	19.0%	Income Tax Rate	27.0%
Leases, Uncapitalized: Annual rentals \$.1 mill.										44.9%	44.4%	47.8%	46.9%	50.6%	49.5%	53.2%	49.0%	46.9%	45.7%	44.0%	44.5%	AFUDC % to Net Profit	2.0%
Pension Assets-12/14 \$61.6 mill. Oblig. \$79.8 mill.										54.6%	55.1%	51.8%	52.7%	49.1%	50.2%	46.5%	50.8%	52.9%	54.1%	56.0%	55.5%	Long-Term Debt Ratio	47.0%
Pfd Stock \$0.8 mill. Pfd Divd NMF										172.3	174.1	193.2	196.5	221.3	225.6	254.2	364.6	373.6	386.8	400	425	Total Capital (\$mill)	510
Common Stock 11,181,070 shs. as of 10/31/15										247.7	268.1	284.3	302.3	325.2	344.2	362.4	447.9	471.9	506.9	535	565	Net Plant (\$mill)	650
MARKET CAP: \$425 million (Small Cap)										5.0%	4.9%	5.5%	5.9%	5.5%	5.4%	4.9%	4.8%	5.9%	6.4%	6.5%	6.5%	Return on Total Cap'l	6.5%
CURRENT POSITION 2013 2014 9/30/15										7.5%	6.9%	8.7%	9.0%	9.3%	8.6%	8.3%	7.3%	9.2%	10.1%	10.5%	10.0%	Return on Shr. Equity	9.5%
(SMILL.)										7.6%	7.0%	8.7%	9.1%	9.4%	8.7%	8.3%	7.3%	9.2%	10.2%	10.5%	10.0%	Return on Com Equity	9.5%
Cash Assets										.3%	NMF	1.6%	1.9%	2.3%	1.6%	1.4%	2.8%	3.8%	4.8%	5.0%	5.0%	Retained to Com Eq	4.0%
Accounts Receivable										95%	105%	82%	79%	76%	81%	83%	62%	59%	53%	52%	52%	All Div'ds to Net Prof	58%
Other																							
Current Assets																							
Accts Payable																							
Debt Due																							
Other																							
Current Liab.																							
ANNUAL RATES																							
of change (per sh)																							
Revenues																							
"Cash Flow"																							
Earnings																							
Dividends																							
Book Value																							
Cal-endar																							
QUARTERLY REVENUES (\$mill.)																							
Mar.31 Jun.30 Sep.30 Dec.31																							
2012																							
2013																							
2014																							
2015																							
2016																							
EARNINGS PER SHARE ^A																							
Mar.31 Jun.30 Sep.30 Dec.31																							
2012																							
2013																							
2014																							
2015																							
2016																							
QUARTERLY DIVIDENDS PAID ^B																							
Mar.31 Jun.30 Sep.30 Dec.31																							
2012																							
2013																							
2014																							
2015																							
2016																							

Business: Connecticut Water Service, Inc. is a non-operating holding company, whose income is derived from earnings of its wholly-owned subsidiary companies (regulated water utilities). In 2014, 93% of net income was derived from these activities. Provides water services to 400,000 people in 77 municipalities throughout Connecticut and Maine. Acquired The Maine Water Company, January, 2012; Biddeford and Saco Water, December, 2012. Incorporated: Connecticut. Has 265 employees. Chairman/President/Chief Executive Officer: Eric W. Thornburg. Officers and directors own 2.3% of the common stock; BlackRock, Inc. 7.0%; (4/15 proxy). Address: 93 West Main Street, Clinton, CT 06413. Telephone: (860) 669-8636. Internet: www.ctwater.com.

Connecticut Water Service probably turned in another solid earnings performance last year. Even though we are expecting the company to report a negative profit comparison in the fourth quarter, we think the utility still posted a healthy 7% increase in full-year share earnings versus 2014. This would mark the fourth-straight year of healthy gains. **We are being more conservative in our expectations for 2016.** For now, we are sticking with our \$2.10-a-share forecast, which would be only a 2.5% increase over 2015. Connecticut Water could surprise to the upside, however, due to the continued benefits of an earlier rate increase in Maine. **A substantial hike in capital expenditures has been approved for this year.** In late November, the company announced it will spend \$66 million on major projects during 2016. This represents a hefty 47% rise over what we estimate Connecticut spent in 2015. Roughly one-third of the total will be used to upgrade a wastewater facility, with the rest expected to be spent replacing the company's aging infrastructure.

The balance sheet is in decent shape. The company carries an average Financial Strength rating of B+, but that would be higher if Connecticut's market capitalization was larger. The current long-term debt-to-total capital ratio is 44%, which is near the lower end of the industry spectrum. What's more, even with the company's higher projected budgets over the next year or two, we think the balance sheet should remain quite sound through the late decade. **Dividend growth is clearly on the upswing.** For years, the company would only raise its annual payout by 2%. Starting in 2014, the rate rose to 3%, and increased 4% in 2015. Over the next 3- to 5-year period, we expect growth to average 5%. **These shares are ranked to perform in line with the broader market averages in the year ahead.** Moreover, it appears that all of the company's strong points are currently factored into the recent price. Indeed, the stock's capital appreciation potential to 2018-2020 is only 10%, versus the median of 50% for all companies in the Value Line universe.

James A. Flood
January 15, 2016

MIDDLESEX WATER NDQ-MSEX				RECENT PRICE	26.23		P/E RATIO	21.3 (Trailing: 22.6 Median: 21.0)		RELATIVE P/E RATIO	1.23		DIV'D YLD	3.0%		VALUE LINE			
TIMELINESS	3	Lowered 4/11/14	High: 21.8	23.5	20.5	20.2	19.8	17.9	19.3	19.4	19.6	22.5	23.7	28.0	Target Price Range 2018 2019 2020				
SAFETY	2	New 10/21/11	Low: 16.7	17.1	16.5	16.9	12.0	11.6	14.7	16.5	17.5	18.6	19.1	21.2	64				
TECHNICAL	3	Lowered 12/18/15	LEGENDS 120 x Dividends p sh divided by Interest Rate Relative Price Strength 4-for-3 split 11/03 Options: No Shaded area indicates recession										48						
BETA	.70	(1.00 = Market)											40						
2018-20 PROJECTIONS															32				
Price	35	Gain (+35%)	Ann'l Total Return												24				
High	35	Low	25	Options												20			
Insider Decisions															16				
F	M	A	M	J	J	A	S	O								12			
to Buy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8				
Options	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6				
to Sell	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Institutional Decisions															12				
1Q2015	2Q2015	3Q2015	Percent shares traded												8				
to Buy	40	43	47												4				
to Sell	38	36	42																
Hld's(000)	6413	6487	6614																
1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	© VALUE LINE PUB. LLC 18-20	
5.35	5.39	5.87	5.98	6.12	6.25	6.44	6.16	6.50	6.79	6.75	6.60	6.50	6.98	7.19	7.26	7.70	8.00	Revenues per sh	9.10
1.19	.99	1.18	1.20	1.15	1.28	1.33	1.33	1.49	1.53	1.40	1.55	1.46	1.56	1.72	1.84	2.10	2.15	"Cash Flow" per sh	2.25
.76	.51	.66	.73	.61	.73	.71	.82	.87	.89	.72	.96	.84	.90	1.03	1.13	1.20	1.30	Earnings per sh ^A	1.35
.60	.61	.62	.63	.65	.66	.67	.68	.69	.70	.71	.72	.73	.74	.75	.76	.78	.81	Div'd Decl'd per sh ^B	.89
2.33	1.32	1.25	1.59	1.87	2.54	2.18	2.31	1.66	2.12	1.49	1.90	1.50	1.36	1.26	1.40	1.60	1.75	Cap'l Spending per sh	2.00
6.95	6.98	7.11	7.39	7.60	8.02	8.26	9.52	10.05	10.03	10.33	11.13	11.27	11.48	11.82	12.24	12.45	12.95	Book Value per sh	14.30
10.00	10.11	10.17	10.36	10.48	11.36	11.58	13.17	13.25	13.40	13.52	15.57	15.70	15.82	15.96	16.12	16.25	16.25	Common Shs Outst'g ^C	17.00
17.6	28.7	24.6	23.5	30.0	26.4	27.4	22.7	21.6	19.8	21.0	17.8	21.7	20.8	19.7	18.5	19.4		Avg Ann'l P/E Ratio	21.0
1.00	1.87	1.26	1.28	1.71	1.39	1.46	1.23	1.15	1.19	1.40	1.13	1.36	1.32	1.11	.98	.98		Relative P/E Ratio	1.30
4.4%	4.2%	3.8%	3.7%	3.5%	3.4%	3.5%	3.7%	3.7%	4.0%	4.7%	4.2%	4.0%	4.0%	3.7%	3.7%	3.3%		Avg Ann'l Div'd Yield	3.1%
CAPITAL STRUCTURE as of 9/30/15																		155	
Total Debt 158.9 mill. Due in 5 Yrs \$49.8 mill.																		23.0	
LT Debt \$135.2 mill. LT Interest \$4.6 mill.																		34.0%	
(39% of Cap'l)																		2.5%	
Pension Assets-12/14 \$51.6 mill.																		43.5%	
Oblig. \$75.0 mill.																		56.5%	
Pfd Stock \$2.4 mill. Pfd Div'd: \$.1 mill.																		430	
Common Stock 16,211,304 shs.																		555	
as of 10/31/15																		6.5%	
MARKET CAP: \$425 million (Small Cap)																		9.5%	
CURRENT POSITION																		9.5%	
2013 2014 9/30/15																		3.5%	
(\$MILL.)																		66%	
Cash Assets 4.8																			
Other 21.0																			
Current Assets 25.8																			
Accts Payable 6.3																			
Debt Due 33.8																			
Other 12.6																			
Current Liab. 52.7																			
ANNUAL RATES																			
Past 10 Yrs. Past 5 Yrs. Est'd '12-'14 to '18-'20																			
Revenues 1.5%																			
"Cash Flow" 3.5%																			
Earnings 4.0%																			
Dividends 1.5%																			
Book Value 4.5%																			
QUARTERLY REVENUES (\$ mill.)																			
Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year																			
2012 23.5 27.4 32.4 27.1 110.4																			
2013 27.0 29.1 31.3 27.4 114.8																			
2014 27.1 29.2 32.7 28.1 117.1																			
2015 28.8 31.7 34.7 29.8 125																			
2016 29.5 32.5 35.5 32.5 130																			
EARNINGS PER SHARE ^A																			
Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year																			
2012 .11 .24 .38 .17 .90																			
2013 .20 .28 .36 .19 1.03																			
2014 .20 .29 .42 .22 1.13																			
2015 .22 .31 .41 .26 1.20																			
2016 .23 .33 .45 .29 1.30																			
QUARTERLY DIVIDENDS PAID ^B																			
Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year																			
2012 .185 .185 .185 .185 .74																			
2013 .1875 .1875 .1875 .19 .75																			
2014 .19 .19 .19 .1925 .76																			
2015 .1925 .1925 .1925 .19875 .78																			
2016																			
BUSINESS: Middlesex Water Company engages in the ownership and operation of regulated water utility systems in New Jersey, Delaware, and Pennsylvania. It also operates water and wastewater systems under contract on behalf of municipal and private clients in NJ and DE. Its Middlesex System provides water services to 60,000 retail customers, primarily in Middlesex County, New Jersey. In 2014, the Middlesex System accounted for 60% of operating revenues. At 12/31/14, the company had 282 employees. Incorporated: NJ. President, CEO, and Chairman: Dennis W. Doll. Officers & directors own 3.5% of the common stock; BlackRock Institutional Trust Co., 6.6% (4/15 proxy). Add.: 1500 Ronson Road, Iselin, NJ 08830. Tel.: 732-634-1500. Internet: www.middlesexwater.com.																			
Shares of Middlesex continue to perform well. Since our mid-October report, the value of the equity has risen 8.2%, compared to 4.9% for the industry, and 1.9% for the S&P 500 Index. We think the utility finished 2015 on a positive note. Third-quarter results were disappointing due to a sharp spike in expenses related to the company's employee benefit plan. With costs at more normal levels in the final quarter, Middlesex probably posted an earnings-per-share gain of over 15%. Rate relief implemented in New Jersey was almost certainly the reason for the expected strong showing. Earnings should be even better this year. Even though New Jersey regulators were restrictive in last year's major rate case by allowing only \$5 million of the \$9 million in higher tariffs sought by Middlesex, the rate hike will be in effect for the entire year. Moreover, despite the aforementioned employee compensation charge, the utility has been doing a fairly good job of containing costs. A major change has been made in Middlesex's dividend policy. The company has increased the annual dividend since 1997 by exactly \$0.01 a share annually (one-quarter of one cent every quarter). In the final period of 2015, however, instead of raising the quarterly payout the usual amount to \$.1925, or +1.3%, management hiked the payout five-eighths of one cent, or 3.2%. To reflect this, we've raised our long-term growth forecast. Finances are very solid. Though not a large company, Middlesex has an equity-to-total capital ratio close to 60%, which is extremely high for a water utility. Due to projected greater capital spending commitments to modernize the existing water infrastructure, we expect the financial metrics to slide marginally, but still remain well above industry levels. Most of the bloom is off the rose of these shares. As evidenced by the recent strength in the stock price, investors have become well aware of company's positive attributes. The equity is current ranked to only be a market performer this year. Over the pull to 2018-2020, though, projected capital appreciation is only 15%, substantially below the 50% median of all stocks in the Value Line universe. <i>James A. Flood</i> January 15, 2016																			

SJW CORP. NYSE-SJW

RECENT
PRICE

29.52

P/E RATIO

21.7

(Trailing: 22.2
Median: 24.0)

RELATIVE
P/E RATIO

1.25

DIV/D
YLD

2.7%

VALUE
LINE

TIMELINESS 4 Lowered 11/27/15
SAFETY 3 New 4/22/11
TECHNICAL 4 Lowered 1/15/16
BETA .75 (1.00 = Market)

High: 19.6 27.8 45.3 43.0 35.1 30.4 28.2 26.8 26.9 30.1 33.7 35.7
Low: 14.6 16.1 21.2 27.7 20.0 18.2 21.6 20.9 22.6 24.5 25.5 27.5

LEGENDS
150 x Dividends p sh
divided by Interest Rate
Relative Price Strength
3-for-1 split 3/04
2-for-1 split 3/06
Options: No
Shaded area indicates recession

2018-20 PROJECTIONS

Price	Gain	Ann'l Total
45	(+50%)	13%
30	(Nil)	3%

Insider Decisions

	F	M	A	M	J	J	A	S	O
to Buy	1	3	0	0	1	0	1	0	0
Options	0	0	0	0	0	0	0	0	0
to Sell	1	0	0	0	1	0	0	0	0

Institutional Decisions

	1Q2015	2Q2015	3Q2015
to Buy	61	63	61
to Sell	47	49	44

Percent
shares
traded

15
10
5

% TOT. RETURN 12/15

THIS STOCK
1 yr. -5.3
3 yr. 20.7
5 yr. 28.7

VL ARITH.
INDEX
1 yr. -6.9
3 yr. 37.7
5 yr. 52.1

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1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016

6.40 6.74 7.45 7.97 8.20 9.14 9.86 10.35 11.25 12.12 11.68 11.62 12.85 14.01 13.73 15.76 14.15 14.30

1.43 1.23 1.49 1.55 1.75 1.89 2.21 2.38 2.30 2.44 2.21 2.38 2.80 2.97 2.90 4.42 3.40 3.65

.87 .58 .77 .78 .91 .87 1.12 1.19 1.04 1.08 .81 .84 1.11 1.18 1.12 2.54 1.35 1.55

.40 .41 .43 .46 .49 .51 .53 .57 .61 .65 .66 .68 .69 .71 .73 .75 .78 .81

1.77 1.89 2.63 2.06 3.41 2.31 2.83 3.87 6.62 3.79 3.17 5.65 3.75 5.67 4.68 5.02 4.65 5.20

7.88 7.90 8.17 8.40 9.11 10.11 10.72 12.48 12.90 13.99 13.66 13.75 14.20 14.71 15.92 17.75 18.30 19.30

18.27 18.27 18.27 18.27 18.27 18.27 18.27 18.28 18.36 18.18 18.50 18.55 18.59 18.67 20.17 20.29 20.50 21.00

15.5 33.1 18.5 17.3 15.4 19.6 19.7 23.5 33.4 26.2 28.7 29.1 21.2 20.4 24.3 11.2 22.8

.88 2.15 .95 .94 .88 1.04 1.05 1.27 1.77 1.58 1.91 1.85 1.33 1.30 1.37 .59 1.16

3.0% 2.1% 3.0% 3.4% 3.5% 3.0% 2.4% 2.0% 1.7% 2.3% 2.8% 2.8% 2.9% 3.0% 2.7% 2.6% 2.5%

CAPITAL STRUCTURE as of 9/30/15
Total Debt \$405.8 mill. Due in 5 Yrs \$21.2 mill.
LT Debt \$381.0 mill. LT Interest \$21.0 mill.
(51% of Cap'l)

Leases, Uncapitalized: Annual rentals \$5.5 mill.

Pension Assets-12/14 \$91.4 mill.
Obliq. \$128.7 mill.

Pfd Stock None.

Common Stock 20,381,949 shs.
as of 10/21/15
MARKET CAP: \$600 million (Small Cap)

CURRENT POSITION 2013 2014 9/30/15 (\$MILL.)

Cash Assets 2.3 2.4 6.3
Accts Receivable 14.5 15.0 20.3
Other 22.9 50.7 50.3
Current Assets 39.7 68.1 76.9
Accts Payable 12.6 7.0 17.5
Debt Due 23.0 13.8 24.8
Other 23.6 23.9 30.7
Current Liab. 59.2 44.7 73.0

ANNUAL RATES Past Past Est'd '12-'14
of change (per sh) 10 Yrs 5 Yrs to '16-'20

Revenues 5.5% 4.5% 3.5%
"Cash Flow" 7.0% 8.0% 2.5%
Earnings 6.5% 10.5% 1.5%
Dividends 4.0% 3.0% 6.0%
Book Value 6.0% 3.5% 6.0%

Cal-endar **QUARTERLY REVENUES (\$ mill.)** Full Year

2012 51.1 65.6 82.4 62.4 261.5
2013 50.1 74.2 85.2 67.4 276.9
2014 54.6 70.4 125.4 69.3 319.7
2015 62.1 72.4 83.0 72.5 290
2016 60.0 75.0 90.0 75.0 300

Cal-endar **EARNINGS PER SHARE A** Full Year

2012 .06 .28 .53 .31 1.18
2013 .07 .37 .44 .24 1.12
2014 .04 .34 1.88 .28 2.54
2015 .23 .36 .46 .30 1.35
2016 .18 .42 .60 .35 1.55

Cal-endar **QUARTERLY DIVIDENDS PAID P=** Full Year

2012 .1775 .1775 .1775 .1775 .71
2013 .1825 .1825 .1825 .1825 .73
2014 .1875 .1875 .1875 .1875 .75
2015 .1950 .1950 .1950 .1950 .78

February. Quarterly earnings may not add due to rounding.

(B) Dividends historically paid in early March, June, September, and December. Div'd rein-

vestment plan available.

(C) In millions, adjusted for stock splits.

Company's Financial Strength B+

Stock's Price Stability 85

Price Growth Persistence 20

Earnings Predictability 50

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BUSINESS: SJW Corporation engages in the production, purchase, storage, purification, distribution, and retail sale of water. It provides water service to approximately 229,000 connections with a total population of roughly one million people in the San Jose area and 12,000 connections that reaches about 36,000 residents in the region between San Antonio and Austin, Texas. The company also

Shares of SJW Corp. have badly underperformed both the company's peer group and the broader market averages since our mid-October report. During this span, the value of SJW has declined 5.0%, versus the 4.9% increase posted by the average water utility, and the gain of about 1.9% recorded by the S&P 500 Index.

We have reduced our full-year 2015 earnings estimate for the company. Share earnings for the third quarter came in at \$0.46, \$0.07 below our forecast. The disappointing results were mainly attributed to higher administrative costs, pension-related expenses, and a spike in the income tax rate. We should note that comparing figures from 2014 and 2015 is difficult, as 2014's income was bolstered by a one-time \$45 million reimbursement for expenses incurred in past years. In any case, we have sliced \$0.10 a share off of our prior estimate and now think SJW's earnings per share will only reach \$1.35. **The profit picture looks much brighter next year.** For starters, the utility operates in a thriving service area, which includes Silicon Valley. Moreover,

offers nonregulated water-related services and owns and operates commercial real estate investments. Has about 395 employees. Officers and directors (including Nancy O. Moss) own 27.9% of outstanding shares. Chairman: Charles J. Toeniskoetter. Incorporated: California. Address: 110 West Taylor Street, San Jose, CA 95110. Telephone: (408) 279-7800. Internet: www.sjwater.com.

the regulatory climate in California is actually constructive as authorities have been working with utilities to enable them to earn a reasonable rate of return on equity despite spending freely to replace old pipes and modernize other parts of the water distribution system. SJW has been investing heavily (and should continue to do so through late decade) on modernizing its entire water infrastructure. All told, we think share net can rise 15%, to \$1.55. One caveat is that our assumption does not factor in a lengthy delay in recovering costs related to the drought.

Dividend growth prospects are decent. Even though we only project earnings to increase 1%-2% annually through to 2018-2020, we think the current dividend-to-net profit ratio is relatively low, which should enable dividends to increase a healthy 6% a year, over that time. **SJW stock is the lone equity in the water utility group expected to underperform the market averages in the year ahead.** Furthermore, despite the recent price weakness, long-term total return prospects are also not appealing.

James A. Flood January 15, 2016

YORK WATER NDQ:YORW

RECENT PRICE

24.84

P/E RATIO

25.6

(Trailing: 25.3 Median: 25.0)

RELATIVE P/E RATIO

1.48

DIV'D YLD

2.5%

VALUE LINE

Target Price Range

2018 2019 2020

TIMELINESS 2 Raised 12/18/15
SAFETY 3 Lowered 7/17/15
TECHNICAL 3 Raised 1/15/16
BETA .75 (1.00 = Market)

High: 14.0 17.9 21.0 18.5 16.5 18.0 18.0 18.1 18.5
Low: 11.0 11.7 15.3 15.5 6.2 9.7 12.8 15.8 16.8

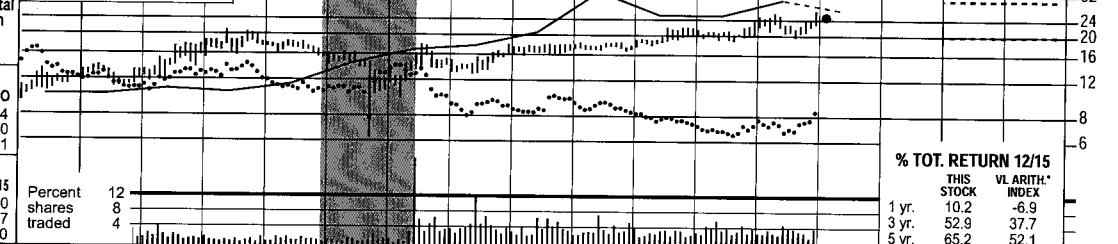
LEGENDS
1.10 x Dividends p sh
divided by Interest Rate
Relative Price Strength
3-for-2 split 9/06
Options: No
Shaded area indicates recession

2018-20 PROJECTIONS

Price 30 Gain 20%
Low 20 (-20%)
Ann'l Total Return 7%
Return -2%

Insider Decisions
F M A M J J A S O
to Buy 0 2 4 1 0 4 1 0 4
Options 0 0 0 0 0 0 0 0 0
to Sell 0 0 0 0 0 0 0 0 1

Institutional Decisions
1Q2015 2Q2015 3Q2015
to Buy 33 34 30
to Sell 29 31 27
Hld's(000) 3841 3769 3840



1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	© VALUE LINE PUB. LLC	18-20
--	--	2.05	2.05	2.17	2.18	2.58	2.56	2.79	2.89	2.95	3.07	3.18	3.21	3.27	3.58	3.75	4.00	Revenues per sh	5.00
--	--	.59	.57	.65	.65	.79	.77	.86	.88	.95	1.07	1.09	1.12	1.19	1.36	1.45	1.55	"Cash Flow" per sh	1.75
--	--	.43	.40	.47	.49	.56	.58	.57	.57	.64	.71	.71	.72	.75	.89	.93	1.00	Earnings per sh A	1.15
--	--	.34	.35	.37	.39	.42	.45	.48	.49	.51	.52	.53	.54	.55	.57	.60	.63	Div'd Decl'd per sh B	.80
--	--	.75	.66	1.07	2.50	1.69	1.85	1.69	2.17	1.18	.83	.74	.94	.76	1.10	.95	1.25	Cap'l Spending per sh	1.10
--	--	3.79	3.90	4.06	4.65	4.85	5.84	5.97	6.14	6.92	7.19	7.45	7.73	7.98	8.15	8.40	8.40	Book Value per sh	9.50
--	--	9.46	9.55	9.63	10.33	10.40	11.20	11.27	11.37	12.56	12.69	12.79	12.92	12.98	12.83	12.75	12.50	Common Shs Outst'g C	12.00
--	--	17.8	26.9	24.5	25.7	26.3	31.2	30.3	24.6	21.9	20.7	23.9	24.4	26.3	23.1	24.5		Avg Ann'l P/E Ratio	22.5
--	--	.91	1.47	1.40	1.36	1.40	1.68	1.61	1.48	1.46	1.32	1.50	1.55	1.48	1.22	1.24		Relative P/E Ratio	1.40
--	--	4.4%	3.3%	3.2%	3.1%	2.9%	2.5%	2.8%	3.5%	3.6%	3.5%	3.1%	3.1%	2.8%	2.8%	2.6%		Avg Ann'l Div'd Yield	3.2%

CAPITAL STRUCTURE as of 9/30/15
Total Debt \$87.3 mill. Due in 5 Yrs \$30.5 mill.
LT Debt \$87.3 mill. LT Interest \$5.1 mill.

Pension Assets 12/14 \$30.6 mill.
Oblig. \$40.9 mill.
(45% of Cap'l)

Pfd Stock None

Common Stock 12,791,600 shs.
as of 11/5/15
MARKET CAP: \$325 million (Small Cap)

CURRENT POSITION (\$MILL.)	2013	2014	9/30/15
Cash Assets	7.6	1.5	1.1
Accounts Receivable	3.8	4.0	4.3
Inventory (Avg. Cost)	.7	.8	.8
Other	3.1	4.9	4.0
Current Assets	15.2	11.2	10.2
Accts Payable	1.8	1.6	2.0
Debt Due	--	--	--
Other	6.0	4.3	4.3
Current Liab.	7.8	5.9	6.3

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '12-'14 to '18-'20
Revenues	4.5%	3.0%	7.0%
"Cash Flow"	7.0%	6.5%	6.0%
Earnings	5.5%	6.0%	6.5%
Dividends	4.0%	2.5%	6.5%
Book Value	6.5%	4.5%	3.0%

Cal-endar	QUARTERLY REVENUES (\$ mill.)	Full Year
Mar.31 Jun.30 Sep.30 Dec.31		
2012	9.6 10.4 11.0 10.4	41.4
2013	10.1 10.7 10.9 10.7	42.4
2014	10.6 11.8 12.0 11.5	45.9
2015	11.2 11.9 12.4 12.5	48.0
2016	11.5 12.5 13.0 13.0	50.0

Cal-endar	EARNINGS PER SHARE A	Full Year
Mar.31 Jun.30 Sep.30 Dec.31		
2012	.15 .17 .22 .18	.72
2013	.17 .18 .19 .21	.75
2014	.16 .22 .23 .28	.89
2015	.20 .22 .28 .23	.93
2016	.20 .26 .28 .26	1.00

Cal-endar	QUARTERLY DIVIDENDS PAID B	Full Year
Mar.31 Jun.30 Sep.30 Dec.31		
2012	.134 .134 .134 .134	.535
2013	.138 .138 .138 .138	.552
2014	.1431 .1431 .1431 .1431	.572
2015	.1495 .1495 .1495 .1555	.604
2016		

BUSINESS: The York Water Company is the oldest investor-owned regulated water utility in the United States. It has operated continuously since 1816. As of December 31, 2014, the company's average daily availability was 35.2 million gallons and its service territory had an estimated population of 190,000. Has more than 65,100 customers. Residential customers accounted for 63% of 2014 revenues;

Shares of York Water have been stellar performers of late. Over the past three months, the price of this stock has surged roughly 13% in value versus the returns of only about 2% posted by the S&P 500 Index.

Fourth-quarter comparisons are likely to be negative. In the December, 2014 period, York's profits were boosted significantly by a large tax adjustment. Absent this factor, we expect the company's share net to reach only \$0.23, well short of the \$0.28 posted in the similar 2014 time frame. On the plus side, for the full year, York should be able to increase earnings per share by 4% against a difficult comparison.

The earnings outlook is relatively bright for this year. We think the company should continue to benefit to some degree from how the IRS values tangible property. The resulting low tax rate, along with about 2% less shares outstanding (due to a stock-repurchase program), and the utility's ability to earn a return on newly spent capital expenditures, should enable York's share net to rise to \$1.00 a share, almost 8% higher than 2015's es-

timated level. Over the long pull, we think York's dividends and earnings growth rates will be moderate, but be well-defined. The company doesn't operate in a service area that is experiencing rapid growth. Thus, with population increases projected to be marginal at best, revenue and profit expansion should come from mostly upgrading and replacing its aging water infrastructure. Since the need to replace the existing pipeline is obvious, we don't foresee any major disputes with state regulators. Therefore, any harsh regulatory rulings would make our earnings estimates through 2018-2020 too optimistic.

Our ranking system believes the stock of York still has some gas left in the tank. Despite the equity's recent run, we think York will outperform the broader market averages in the year ahead. **Long-term prospects are unattractive, however.** We think the price of these shares now reflects almost all of the utility's positive attributes. Indeed, the stock is already trading well within our projected late-decade Target Price Range.

James A. Flood January 15, 2016

(A) Diluted earnings. Next earnings report due late February.
(B) Dividends historically paid in mid-January, April, July, and October.

(C) In millions, adjusted for splits.

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Company's Financial Strength	B+
Stock's Price Stability	90
Price Growth Persistence	50
Earnings Predictability	95

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TJB-COC-DT2

Exhibit
Page 1 of 3

Companions of Operating Margin and Coefficient of Variation of Operating Margin															
No.	Line	Operating Income EBIT (\$ in millions)					Coefficient of variation of Operating Income								
1	2	3	Company	Symbol	2014	2013	2012	2011	2010	Average	Sid Dev.	Co-efficient of variation			
3	4	5	American States Water	AWR	119	119	111	95	73	103.40	19.62	0.1897			
6	7	8	Aqua America	WTR	314	305	322	286	272	299.80	20.52	0.0665			
9	10	11	California Water	CWT	109	93	93	85	85	94.00	9.00	0.0957			
12	13	14	Connecticut Water	CTWS	25	22	20	16	14	19.40	4.45	0.2264			
15	16	17	Middlesex	MSEX	34	31	28	24	27	28.80	3.83	0.1331			
18	19	20	SJW Corp.	SJW	93	53	55	54	38	58.60	20.45	0.3480			
21	22	23	York Water Company	YORW	22	21	21	20	20	20.80	0.84	0.0402			
24	25	26	Water Proxy Group									0.1579			
27	28	29	Liberty Utilities (Entrada Del Oro Sewer) Corp.		(0.03)	(0.07)	(0.10)	(0.09)	(0.06)	(0.07)	0.03	0.4223			
30	31	32	Risk relative to the average risk of the water utilities sample										2.67		
33	34	35	Sales (\$ in millions)					2013	2012	2011	2010	Average			
36	37	38	American States Water	Symbol	2014	2013	2012	2011	2010	Average					
39	40	41	Aqua America	AWR	466	472	467	419	399	445					
42	43	44	California Water	CWT	780	769	758	712	726	749					
45	46	47	Connecticut Water	CTWS	598	584	560	502	460	541					
48	49	50	Middlesex	MSEX	94	91	84	69	66	81					
51	52	53	SJW Corp.	SJW	117	115	110	102	103	109					
54	55	56	York Water Company	YORW	320	277	262	239	216	263					
57	58	59	Liberty Utilities (Entrada Del Oro Sewer) Corp.		46	42	41	41	39	42					
60	61	62	Operating Margin (%)										0.26		
63	64	65	American Water Works	Symbol	2014	2013	2012	2011	2010	Average	Sid Dev.	Co-efficient of variation			
66	67	68	Aqua America	AWK	23.54%	25.21%	23.77%	22.67%	18.30%	23.10%	0.03	0.1264			
69	70	71	California Water	CWT	40.26%	39.66%	42.48%	40.17%	37.47%	40.01%	0.02	0.0447			
72	73	74	Connecticut Water	CTWS	18.23%	15.92%	16.61%	17.93%	18.48%	17.43%	0.01	0.0637			
75	76	77	Middlesex	MSEX	26.60%	24.18%	23.81%	23.19%	21.21%	23.80%	0.02	0.0815			
78	79	80	SJW Corp.	SJW	29.06%	26.96%	25.45%	23.53%	26.21%	25.24%	0.02	0.0772			
81	82	83	York Water Company	YORW	29.06%	19.13%	20.99%	22.59%	17.59%	21.86%	0.04	0.2029			
84	85	86	Average Water Proxy Group		47.83%	50.00%	51.22%	46.76%	51.28%	49.82%	0.02	0.3034			
87	88	89	Liberty Utilities (Entrada Del Oro Sewer) Corp.						28.90%			0.0895			
90	91	92	Risk relative to the average risk of the water utilities sample										0.4021		
93	94	95	Return on Equity (ROE)					2013	2012	2011	2010	Average	Sid Dev.	Co-efficient of variation	
96	97	98	American States Water	Symbol	2014	2013	2012	2011	2010	Average	Sid Dev.	Co-efficient of variation			
99	100	101	Aqua America	AWR	12.1%	12.7%	11.9%	10.3%	11.0%	11.6%	0.01	0.0818			
102	103	104	California Water	WTR	12.9%	13.4%	11.0%	11.6%	10.8%	11.9%	0.01	0.1015			
105	106	107	Connecticut Water	CWT	9.0%	9.0%	9.0%	8.0%	8.8%	8.7%	0.00	0.0502			
108	109	110	Middlesex	CTWS	10.2%	9.3%	7.3%	8.3%	8.7%	8.8%	0.01	0.1239			
111	112	113	SJW Corp.	MSEX	9.3%	8.7%	7.8%	7.5%	8.2%	8.3%	0.01	0.0865			
114	115	116	York Water Company	SJW	14.4%	7.0%	8.1%	7.9%	6.2%	8.7%	0.03	0.3744			
117	118	119	Water Proxy Group	YORW	11.0%	9.4%	9.3%	9.5%	9.8%	9.8%	0.01	0.0711			
120	121	122	Liberty Utilities (Entrada Del Oro Sewer) Corp.		11.3%	9.9%	9.2%	9.0%	9.0%	9.7%		0.1271			
123	124	125	Risk relative to the average risk of the water utilities sample										0.4253		
126	127	128	Return on Equity (ROE)										3.35		

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Comparative Risk Study
Beta Estimate Using Duff and Phelps Risk Study Portfolio Information

Exhibit
Page 2 of 3

Line
No.

A. Beta Estimates for Water Sample Group and Company¹

	Company	Portfolio 25	Operating Margin ¹ -27.05%	Portfolio 5	CV (Operating Margin) ¹ 40.21%	Portfolio 13	CV (ROE) ¹ 42.53%
1							
2	Water Proxy Group	2	28.90%	19	8.95%	23	12.71%
3	Company						
			Portfolio Beta ²		Portfolio Beta ³		Average
4	Water Proxy Group		1.28		1.34		1.15
5	Percentage Difference		0.83		0.99		0.89
			54.2%		35.4%		29.2%
							39.6%

B. Assume percentage difference is the same for water utilities as companies in general

6	Water Sample Group ⁵		0.73		0.73		0.73
7	Implied Beta for Company ⁶		1.13		0.99		0.94
							1.02

Notes:

- ¹ See work papers. CV stands for Coefficient of Variation.
- ² Source is Duff & Phelps 2105 Valuation Handbook, Risk Study, Exhibit D-1, Companies Ranked by Operating Margin.
- ³ Source is Duff & Phelps 2105 Valuation Handbook, Risk Study, Exhibit D-2, Companies Ranked by CV (Operating Margin).
- ⁵ Source is Schedule D-4.3.
- ⁶ Calculated by multiplying (1+ percentage difference in risk study betas) times average beta for the water sample group.

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Comparative Risk Study
Traditional Capital Asset Pricing Model (CAPM) Using Implied Beta
To Find Additional Risk Premium

Exhibit
Page 2 of 3

Line No.	R_f^1	+	Implied β^2	x	RP_M^3	=	k	CAPM Results From Schedule D-4.11	Indicated Company Risk Premium	
1	Historical Market Risk Premium CAPM	4.5%	+	1.02	x	7.00% ³	=	11.6%	9.6%	2.0%
2	Current Market Risk Premium CAPM	4.5%	+	1.02	x	8.81% ⁴	=	13.5%	10.9%	2.6%

Notes:

- ¹ Forecasts of long-term treasury yields. See Schedule D-4.9.
- ² Implied Beta computed from Duff and Phelps 2015 Valuation Handbook Risk Study information. See page 1 of exhibit.
- ³ Historical Market Risk Premium from (Rp) from Morningstar Ibbotson 214 Classic Yearbook, Long-Horizon ERP on S&P 500. See Schedule D-4.11.
- ⁴ See Schedule D-4.10

TBJ-COC-DT3

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Fair Value Rate of Return (FVROR)

Exhibit
Page 1 of 2

Line No.		Amount	Weighting	Weighted Amount
1	Original Cost Rate Base (OCRB) ¹	\$ 1,489,794	50%	\$ 744,897
2				
3	Replacement Cost New less Depreciation Rate Base (RCNLD) ²			
4				
5	Fair value Rate Base (FVRB)	2,820,167	50%	1,410,083
6				
7	Appreciation Above OCRB ³			
8				
9				
10	Capital			
11	Long-Term Debt	\$ 446,938		
12				
13	Stockholder's Equity	1,042,855		
14				
15	Capital Financing OCRB	\$ 1,489,794		
16				
17	Appreciation Above OCRB Not Recognized on Utility's Books			
18				
19	Total	\$ 2,154,980		
20				
21				
22				
23				
24				
25				
26				

¹ See Schedule B-1

² See Schedule B-1

³ FVRB minus OCRB

⁴ See Schedule D-1

⁵ See page 2 of exhibit.

D SCHEDULES

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Summary of Cost of Capital

Exhibit
Schedule D-1
Page 1
Witness: Bourassa

		<u>Adjusted End of Test Year</u>				<u>Projected Capital Structure</u>			
Line No.	Item of Capital	Dollar Amount	Percent of Total	Cost Rate	Weighted Cost	Dollar Amount	Percent of Total	Cost Rate	Weighted Cost
1	Long-Term Debt	-	0.00%	0.00%	0.00%	848,454	30.00%	3.50%	1.05%
3	Stockholder's Equity	2,876,195	100.00%	12.00%	12.00%	1,979,726	70.00%	12.00%	8.40%
5	Totals	2,876,195	100.00%		12.00%	2,828,180	100.00%		9.45%

Rate of Return to Be Applied to Fair Value Rate Base 6.92%

SUPPORTING SCHEDULES:

RECAP SCHEDULES:
A-3

Cost of Capital Testimony and Exhibit TJB-COC-DT-3.

Liberty Utilities (Entrada Del Oro Sewer) Corp.
 Test Year Ended October 31, 2015
 Cost of Long Term Debt

Exhibit
 Schedule D-2
 Page 1
 Witness: Bourassa

Line No.	Description of Debt	End of Test Year			End of Projected Year		
		Amount Outstanding	Annual Interest	Interest Rate	Weighted Cost	Amount Outstanding	Annual Interest
1							
2	Liberty Utilities - Pro Forma						
3			-	0.00%	0.000%	848,012	29,652
4			-	0.00%	0.000%	-	-
5							3.50%
6							0.00%
7							
8							
9							
10							
11							
12							
13	Totals	\$ -	-		0.000%	\$ 848,012	29,652
14							3.497%
15							0.000%

SUPPORTING SCHEDULES:

E-1

E-2

Testimony

RECAP SCHEDULES:

D-1

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Cost of Preferred Stock

Exhibit
Schedule D-3
Page 1
Witness: Bourassa

Line

No.

1

End of Test Year

End of Projected Year

2

3

Description
of Issue

Shares

Dividend

Outstanding

Amount

Requirement

Shares

Dividend

Outstanding

Amount

Requirement

5

6

7

NOT APPLICABLE, NO PREFERRED STOCK ISSUED OR OUTSTANDING

8

9

10

11

12

13

14

15

16

17

18

19

20

21

SUPPORTING SCHEDULES:

22

E-1

23

24

25

26

27

28

29

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40

RECAP SCHEDULES:

D-1

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Test Year Ended October 31, 2015
Cost of Common Equity

Exhibit
Schedule D-4
Page 1
Witness: Bourassa

Line
No.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

The Company is proposing a cost of common equity of 12.00%

SUPPORTING SCHEDULES:

E-1

D-4.1 to D-4.16

RECAP SCHEDULES:

D-1

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Summary of Results

Exhibit
Schedule D-4.1
Page 1
Witness: Bourassa

Line No.		<u>Indicated</u> <u>Cost of Equity for</u> <u>Water Sample Group</u>		<u>Indicated</u> <u>Cost of Equity for</u> <u>Liberty Utilities (Entrada Del Oro Sewer) Corp.</u>		
1	DCF Constant Growth - Schedule D-4.7	9.0%	to	9.5%	11.3%	to 11.8%
2	Risk Premium Model - Schedule D-4.9			10.5%		12.8%
3	CAPM - Schedule D-4.11	9.6%	to	10.9%	11.9%	to 13.2%
4	Range of Cost of Equity Estimates	9.7%	to	10.3%	12.0%	to 12.6%
5	Financial Risk Adjustment - Schedule D-4.14			0.0%		-0.30%
6	Adjusted Range of Cost of Equity Estimates	9.7%	to	10.3%	11.7%	to 12.3%
7	Mid-point			10.0%		12.0%
8	Cost of Equity Recommendation				12.0%	

Notes:

¹Estimates include an equity risk premium of 230 basis points based on comparative risk study. See Testimony.

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Selected Characteristics of Sample Group of Water Utilities

Exhibit
Schedule D-4.2
Witness: Bourassa

Line No.	Company	Symbol	% Water Revenues ¹	Operating Revenues (millions) ¹	Net Plant (millions) ¹	S&P Bond Rating ¹	Moody's Bond Rating ¹	Allowed ROE (%) ¹	Value Line Beta ²	Market Capitalization ²	Size Category ³
1	American States Water	AWR	72%	\$ 458.4	\$ 1,032.1	A+	A2	9.43	0.70	\$ 1,536.5	Low-Cap
2	Aqua America	WTR	95%	\$ 808.5	\$ 4,605.5	AA-	NR	9.79	0.75	\$ 4,687.6	Mid cap
3	California Water	CWT	98%	\$ 587.3	\$ 1,663.6	AA-	NR	9.43	0.75	\$ 1,060.5	Low-Cap
4	Connecticut Water	CTWS	100%	\$ 97.9	\$ 529.0	A/A-	NR	9.63	0.65	\$ 406.6	Micro-cap
5	Middlesex	MSEX	86%	\$ 123.2	\$ 477.8	A	NR	9.75	0.75	\$ 384.0	Micro-cap
6	SJW Corp.	SJW	95%	\$ 286.8	\$ 991.5	A	NR	9.43	0.75	\$ 636.5	Micro-cap
7	York Water Company	YORW	100%	\$ 47.0	\$ 260.1	A-	NR	NM	0.75	\$ 274.0	Micro-cap
8	Average		92%	\$ 344.2	\$ 1,365.7			9.58	0.73	\$ 1,283.7	
9	Liberty Utilities (Entrada Del Oro Sewer) Corp.		0%	\$ 0.3	\$ 2.9	NR	NR				

Notes:

¹ AUS Utility Reports (February 2016).

² Value Line Analyzer Data (Weekly as of January 22, 2016)

³ See Schedule D-4.15 for definitions of size category

**Liberty Utilities (Entrada Del Oro Sewer) Corp.
Capital Structures**

**Exhibit
Schedule D-4.3
Witness: Bourassa**

Line No.	<u>Company</u>	<u>Symbol</u>	Book Value ¹		Market Value ¹	
			Long-Term <u>Debt</u>	Common <u>Equity</u>	Long-Term <u>Debt</u>	Common <u>Equity</u>
1	American States Water	AWR	39.1%	60.9%	17.5%	82.5%
2	Aqua America	WTR	48.5%	51.5%	25.0%	75.0%
3	California Water	CWT	40.1%	59.9%	28.3%	71.7%
4	Connecticut Water	CTWS	45.8%	54.2%	30.3%	69.7%
5	Middlesex	MSEX	40.8%	59.2%	26.2%	73.8%
6	SJW Corp.	SJW	51.6%	48.4%	37.7%	62.3%
7	York Water Company	YORW	44.8%	55.2%	23.6%	76.4%
8	Average		44.4%	55.6%	26.9%	73.1%
9	Liberty Utilities (Entrada Del Oro Sewer) Corp.	Proforma	30.0%	70.0%	N/A	N/A

¹ Value Line Analyzer Data (Weekly as of January 22, 2016)

**Liberty Utilities (Entrada Del Oro Sewer) Corp.
Comparisons of Past and Future Estimates of Growth**

**Exhibit
Schedule D-4.4
Witness: Bourassa**

Line No.	[1] Company	[2] Five-year historical average annual changes	[3] Book Value ²	[4] EPS ²	[5] Average Historical Growth	[6] Value Line Projected Growth ²	[7] Average of Historical and Proj. Growth
1	American States Water	Price ¹ 22.89%	Value ² 6.50%	EPS ² 14.00%	Average Historical Growth 12.97%	Projected Growth ² 6.00%	Average of Historical and Proj. Growth 9.49%
2	Aqua America	13.56%	6.50%	13.00%	10.02%	7.50%	8.76%
3	California Water	7.86%	5.00%	4.00%	4.71%	6.50%	5.61%
4	Connecticut Water	9.84%	9.50%	9.00%	7.59%	4.50%	6.04%
5	Middlesex	11.77%	3.00%	4.50%	5.19%	5.00%	5.10%
6	SJW Corp.	5.18%	3.50%	10.50%	5.54%	1.50%	3.52%
7	York Water Company	10.72%	4.50%	6.00%	5.93%	6.50%	6.22%
8	GROUP AVERAGE	11.69%	5.50%	8.71%	7.42%	5.36%	6.39%

Notes:

¹ Compound growth in stock prices ending December 31 through 2014. Data from Yahoo Finance website.

² Value Line Analyzer, weekly as of January 22, 2016.

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Comparisons of Past and Future Estimates of Growth

Exhibit
Schedule D-4.5
 Witness: Bourassa

Line No.	[1] <u>Ten-year historical average annual changes</u>	[2] <u>Book</u>	[3] <u>EPS²</u>	[4] <u>DPS²</u>	[5] <u>Average Col 1-4</u>	[6] <u>Value Line Growth²</u>	[7] <u>Average of Historical and Proj. Growth</u>
1	<u>Price¹</u> 13.65%	<u>Value²</u> 6.00%	<u>EPS²</u> 11.00%	<u>DPS²</u> 5.50%	Average Col 1-4 9.04%	Value Line Growth ² 6.00%	Average of Historical and Proj. Growth 7.52%
2	American States Water 5.89%	7.50%	8.50%	7.50%	7.35%	7.50%	7.42%
3	Aqua America 5.21%	5.50%	5.00%	1.50%	4.30%	6.50%	5.40%
4	California Water 8.20%	6.50%	4.00%	2.00%	5.17%	4.50%	4.84%
5	Connecticut Water 8.38%	4.50%	4.00%	1.50%	4.60%	5.00%	4.80%
6	Middlesex 5.37%	6.00%	6.50%	4.00%	5.47%	1.50%	3.48%
7	SJW Corp. 6.94%	6.50%	5.50%	4.00%	5.74%	6.50%	6.12%
8	GROUP AVERAGE	6.07%	6.36%	3.71%	5.95%	5.36%	5.65%

Notes:

¹ Compound growth in stock prices ending December 31 through 2014. Data from Yahoo Finance website.

² Value Line Analyzer Data, weekly as of January 22, 2016.

**Liberty Utilities (Entrada Del Oro Sewer) Corp.
Current Dividend Yields for Water Utility Sample Group**

**Exhibit
Schedule D-4.6
Witness: Bourassa**

Line No.	Company	[1]		[2]		[3]		[4]	
		Stock Price (P ₀) ¹		Current Dividend (D ₀) ¹		Current Dividend Yield (D ₀ /P ₀)		Average Annual Dividend Yield (D ₀ /P ₀) ^{1,2}	
1	American States Water	\$	41.88	\$	0.90	2.15%		2.63%	
2	Aqua America	\$	26.70	\$	0.71	2.66%		2.53%	
3	California Water	\$	22.29	\$	0.68	3.05%		2.77%	
4	Connecticut Water	\$	36.81	\$	1.07	2.91%		3.00%	
5	Middlesex	\$	24.00	\$	0.78	3.25%		3.65%	
6	SJW Corp.	\$	31.02	\$	0.79	2.55%		2.64%	
7	York Water Company	\$	21.55	\$	0.63	2.92%		2.79%	
8	GROUP AVERAGE					2.78%		2.86%	

Notes:

¹ Stock prices as of January 28, 2016. Indicated Dividend from Value Line Analyzer weekly as of January 22, 2016.

² Average Annual Dividend is dividends declared per share for a year divided by the average annual price of the stock in the same year, expressed as a percentage. As report by Value Line Analyzer software. For comparison purposes only.

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Discounted Cash Flow Analysis
DCF Constant Growth

Exhibit
Schedule D-4.7 (page 1)
Witness: Bourassa

Line No.	[1] Dividend Yield (D_0/P_0) ¹	[2] Expected Dividend Yield (D_1/P_0) ²	[3] Value Line Projected Growth (g) ³	[4] Indicated Cost of Equity (COE) $k = \text{Div Yld} + g$ (Cols 2+3)
1	2.15%	2.28%	+ 6.00%	= 8.28%
2	2.66%	2.86%	+ 7.50%	= 10.36%
3	3.05%	3.25%	+ 6.50%	= 9.75%
4	2.91%	3.04%	+ 4.50%	= 7.54%
5	3.25%	3.41%	+ 5.00%	= 8.41%
6	2.55%	2.58%	+ 1.50%	= 4.08% *
7	2.92%	3.11%	+ 6.50%	= 9.61%
8	Average	2.93%	5.36%	8.29%
9	Adjusted Average ⁴			8.99%

Notes:

¹ Spot Dividend Yield = D_0/P_0 . See Schedule D-4.6.

² Expected Dividend Yield = $D_1/P_0 = D_0/P_0 * (1+g)$.

³ Value Line Growth rate (g). See Schedule D-4.5, Col. 6.

⁴ Excludes SJW because results are less than projected Baa bond yields plus 100 basis points or 7.4% See Testimony.

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Discounted Cash Flow Analysis
DCF Constant Growth

Exhibit
Schedule D-4.7 (page 2)
Witness: Bourassa

Line No.	[1] Dividend Yield (D_0/P_0) ¹	[2] Expected Dividend Yield (D_1/P_0) ²	[3] Average of Historical and Proj. Grwth ³	[4] Indicated Cost of Equity (COE) $k = \text{Div Yld} + g$ (Cols 2+3)
1	2.15%	2.31%	+	9.83%
2	2.66%	2.89%	+	11.65%
3	3.05%	3.22%	+	8.83%
4	2.91%	3.08%	+	9.13%
5	3.25%	3.42%	+	8.51%
6	2.55%	2.64%	+	6.16%
7	2.92%	3.11%	+	9.32%
8	Average			9.06%
9	Adjusted Average ⁴			9.54%

Notes:

¹ Spot Dividend Yield = D_0/P_0 . See Table 7.

² Expected Dividend Yield = $D_1/P_0 = D_0/P_0 * (1+g)$.

³ Historical Growth rate (g). See Schedule D-4.5 Col. 7.

⁴ Excludes SJW because results are less than projected Baa bond yields plus 100 basis points or 7.400% . . See Testimony.

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Forecasts of Long-Term Interest Rates

Exhibit
Schedule D-4.8
Witness: Bourassa

Line No.		<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Average</u>
1	Long-term Treasury Rates				
2	Blue Chip Consensus Forecasts ¹	4.00%	4.40%	4.60%	
3	Value Line ²	4.40%	4.60%	4.70%	
4	Average				4.5%
5	Aaa Corporate Bonds				
6	Blue Chip Consensus Forecasts ¹	5.10%	5.50%	5.70%	
7	Value Line ²	5.50%	5.80%	6.00%	
8	Average				5.6%
9	Baa Corporate Bonds				
10	Blue Chip Consensus Forecasts ¹	6.00%	6.50%	6.70%	
11	Value Line ²				
12	Average				6.4%

Notes:

¹ Blue Chip consensus forecasts (December 2015).

² Value Line Quarterly Forecasts dated December 4, 2015.

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Risk Premium Analysis Based on Total Returns

Exhibit
Schedule D-4.9
Witness: Bourassa

Line No.	Annual Total Return ¹	Treasury Bond Yields ²	Annual Risk Premiums
1	1996	6.71%	14.70%
2	1997	6.61%	23.41%
3	1998	5.58%	12.74%
4	1999	5.87%	24.79%
5	2000	5.94%	-2.79%
6	2001	5.49%	10.51%
7	2002	5.43%	-9.59%
8	2003	4.96%	18.76%
9	2004	5.04%	8.74%
10	2005	4.64%	14.38%
11	2006	4.91%	10.95%
12	2007	4.84%	-7.55%
13	2008	4.28%	-6.15%
14	2009	4.08%	-4.28%
15	2010	4.25%	11.01%
16	2011	3.91%	-2.39%
17	2012	2.92%	12.16%
18	2013	3.45%	16.89%
19	2014	3.34%	11.64%
20	2015	2.84%	5.38%
21	15-Year Average	4.0%	6.0%
22	Expected Long-term Treasury Bond Rate ³		4.5%
23	Projected Returns on Equity for Sample		10.5%

Notes:

¹ Composite of average total returns for water utilities. Data from Value Line Analyzer software.

² Average annual 30 Yr. U.S. Treasury Bond yields as reported by the Federal Reserve.

³ Source is Schedule D-4.8.

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Estimation of Current Market Risk Premium
Using DCF Analysis

Exhibit
Schedule D-4.10
Witness: Bourassa

Line No.	Month	Dividend Yield (D_t/P_0) ¹	Expected Dividend Yield (D_t/P_0) ²	Expected Growth (g) ³	Expected Market Return (k)	Monthly Average 30 Year Treasury Rate ⁴	Expected Market Risk Premium (MRP)
1	May 2014	2.37%	2.59%	+ 9.42%	= 12.01%	= 3.39%	= 8.62%
2	June	2.34%	2.56%	+ 9.33%	= 11.89%	= 3.42%	= 8.47%
3	July	2.42%	2.65%	+ 9.50%	= 12.15%	= 3.33%	= 8.82%
4	Aug	2.38%	2.61%	+ 9.50%	= 12.11%	= 3.20%	= 8.91%
5	Sept	2.82%	3.10%	+ 9.83%	= 12.93%	= 3.26%	= 9.67%
6	Oct	2.45%	2.68%	+ 9.50%	= 12.18%	= 3.04%	= 9.14%
7	Nov	2.38%	2.61%	+ 9.67%	= 12.27%	= 3.04%	= 9.23%
8	Dec	2.44%	2.67%	+ 9.67%	= 12.34%	= 2.83%	= 9.51%
9	Jan 2015	2.45%	2.68%	+ 9.50%	= 12.18%	= 2.46%	= 9.72%
10	Feb	2.38%	2.61%	+ 9.50%	= 12.11%	= 2.57%	= 9.54%
11	Mar	2.42%	2.64%	+ 9.17%	= 11.81%	= 2.63%	= 9.18%
12	Apr	2.40%	2.61%	+ 9.00%	= 11.61%	= 2.59%	= 9.02%
13	May	2.41%	2.63%	+ 9.00%	= 11.63%	= 2.96%	= 8.67%
14	June	2.50%	2.72%	+ 8.83%	= 11.56%	= 3.11%	= 8.45%
15	July	2.56%	2.78%	+ 8.83%	= 11.62%	= 3.07%	= 8.55%
16	Aug	2.70%	2.95%	+ 9.00%	= 11.95%	= 2.86%	= 9.09%
17	Sept	2.84%	3.10%	+ 9.00%	= 12.10%	= 2.95%	= 9.15%
18	Oct	2.67%	2.91%	+ 9.00%	= 11.91%	= 2.89%	= 9.02%
19	Nov.	2.70%	2.94%	+ 8.83%	= 11.77%	= 3.03%	= 8.74%
20	Dec.	2.80%	3.04%	+ 8.67%	= 11.71%	= 2.97%	= 8.74%
21	Jan. 2016	3.07%	3.33%	+ 8.50%	= 11.83%	= 2.86%	= 8.97%
21	Recommended	2.85%	3.10%	+ 8.67%	= 11.77%	= 2.95%	= 8.81%
22	Short-term Trends						
23	Recent Twelve Months Avg	2.62%	2.85%	+ 8.94%	= 11.80%	= 2.87%	= 8.92%
24	Recent Nine Months Avg	2.69%	2.93%	+ 8.85%	= 11.78%	= 2.97%	= 8.82%
25	Recent Six Months Avg	2.80%	3.04%	+ 8.83%	= 11.88%	= 2.93%	= 8.95%
26	Recent Three Months Avg	2.85%	3.10%	+ 8.67%	= 11.77%	= 2.95%	= 8.81%

Notes:

- ¹ Average Dividend Yield (D_0/P_0) of dividend paying stocks. Data from Value Line Investment Analyzer Software Data - Value Line 1700 Stocks
- ² Expected Dividend Yield (D_t/P_0) equals current average dividend yield (D_0/P_0) times one plus growth rate(g).
- ³ Median of Projected EPS, Projected DPS Growth and Projected BV Growth for VL 1700 stocks. Data from Value Line Investment Analyzer Software.
- ⁴ Monthly average 30 year U.S. Treasury. Federal Reserve.

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Traditional Capital Asset Pricing Model (CAPM)

Exhibit
Schedule D-4.11
Witness: Bourassa

Line No.		<u>Rf</u> ¹	+	<u>beta</u> ²	x	<u>RP_M</u>	=	<u>k</u>
1	Historical Market Risk Premium CAPM	4.5%	+	0.73	x	7.00%	=	9.6%
2	Current Market Risk Premium CAPM	4.5%	+	0.73	x	8.81%	=	10.9%
3	Average							10.3%

Notes:

¹ Forecasts of long-term treasury yields. See Schedule D-4.8.

² Value Line Investment Analyzer data. See Schedule D-4.3.

³ Historical Market Risk Premium Duff & Phelps 2015 Valuation Handbook, Appendix 3, Long-Horizon ERP.

⁴ See Schedule D-4.10.

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Financial Risk Computation
Unlevered Beta

Exhibit
Schedule D-4.12
Witness: Bourassa

Line No.	Company	VL Beta β_L^1	Raw Beta β_L^2	Tax Rate t^3	MV Debt D^4	MV Equity E^4	Unlevered Raw Beta β_U^5
1							
2							
3							
4							
5	1. American Water Worl	0.70	0.55	38.4%	17.5%	82.5%	0.49
6	2. Aqua America	0.75	0.63	10.5%	25.0%	75.0%	0.49
7	3. California Water	0.75	0.63	33.0%	28.3%	71.7%	0.50
8	4. Connecticut Water	0.65	0.48	14.4%	30.3%	69.7%	0.35
9	5. Middlesex	0.75	0.63	35.0%	26.2%	73.8%	0.51
10	6. SJW Corp.	0.75	0.63	32.5%	37.7%	62.3%	0.45
11	7. York Water	0.75	0.63	29.8%	23.6%	76.4%	0.52
12							
13	Sample Water Utilities:	0.73	0.60	27.7%	26.9%	73.1%	0.47
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

¹ Value Line Investment Analyzer data. See Schedule D-4.1.
Value Line uses the historical data of the stock, but assumes that a security's beta moves toward the market average over time. The formula is as follows:

Adjusted beta = $.33 + (.67) * \text{Raw beta}$

² Raw Beta = $(VL \text{ beta} - .33) / (.67)$

³ Effective tax rates for year ended December 31, 2013.

⁴ See Schedule D-4.2.

⁵ Raw $\beta_U = \text{Raw } \beta_L / (1 + (1-t)^*D/E)$

Liberty Utilities (Entrada Del Oro Sewer) Corp.
Financial Risk Computation
Relevered Beta

Exhibit
Schedule D-4.13
Page 1
Witness: Bourassa

Line No.	Unlevered Raw Beta β_{UL}^1	MV Book Debt $\frac{BD^2}{EC^2}$	MV Equity Capital $\frac{EC^2}{EC^2}$	Tax Rate t^2	Relevered Raw Beta $\beta_{RL} = \beta_U (1 + (1-t)BD/EC)$	Adjusted Relevered Beta β_{RL} $.33 + .67(Raw Beta)$
1						
2						
3						
4						
5	Liberty Utilities (Entrada Del Oro Sewer) Corp.	0.47	15.7%	32.77%	0.53	0.69
6						
7						
8						
9						
10						
11						
12						

¹ Unlevered Beta from Unlevered Beta tab in WP.

² Proforma Capital Structure of Company per D-1

	EDO (in Thousands)	MV (in Thousands)	MV %
Long-term Debt	\$ 958	\$ 958	15.70%
Preferred Stock	-	-	0.0%
Common Stock	\$ 2,236	\$ 5,128	84.3%
Total Capital	\$ 3,195	\$ 6,086	100.0%

(a) Current market-to-book ratio of sample water utilities. See work papers.

³ Current Tax rate based on test year ending 12/31/2014. See Schedule C-5.

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25
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Liberty Utilities (Entrada Del Oro Sewer) Corp.
Financial Risk Computation

Exhibit
Schedule D-4.14
Page 1
Witness: Bourassa

Line
No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

CAPM

Historical Market Risk Premium	R _f	+	β	x	(R _p)	=	k
Current Market Risk Premium	4.5%	1	0.73	2	7.00%	3	9.6%
	4.5%	1	0.73	2	8.81%	4	10.9%
Average							10.3%

CAPM Relevered Beta

Historical Market Risk Premium	R _f	+	β	x	(R _p)	=	k
Current Market Risk Premium	4.5%	1	0.69	5	7.00%	3	9.3%
	4.5%	1	0.69	5	8.81%	4	10.6%
Average							10.0%

Indicated Financial Risk Adjustment

-0.3%

- ¹ Forecast of long-term treasury yields. See Schedule D-4.8.
² Value Line Investment Analyzer data. See Schedule D-4.1.
³ Historical Market Risk Premium from (Rp) Duff & Phelps 2015 Valuation Handbook Appendix3 Long-Horizon ERP 1928-2013.
⁴ Computed using DCF constant growth method to determine current market return on Value Line 1700 stocks and CAPM with beta of 1.0 to compute Current Market Risk Premium (Rp). See Schedule D-4.10.
⁵ Relevered beta found on Relevered Beta. See Schedule D-4.13.

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Liberty Utilities (Entrada Del Oro Sewer) Corp.
Risk Premium¹

Exhibit
Schedule D-4.15
Witness: Bourassa

Line No.	Beta(β)	Size Premium	Risk Premium for Small Water Utilities ⁷
1	1.12	1.07%	
2	1.22	1.80%	
3	1.35	3.74%	
4	1.40	5.78%	3.25%
5	Estimated Risk Premium for small utilities ⁶		
6	Estimated Risk Premium for EDO ⁸		
		2.00%	to 2.60%
			Risk Premium for Small Water Utilities
			0.99%

¹ Data from Table 4-7 of Duff & Phelps, 2015 Valuation Handbook Guide to Cost of Capital.
² Mid-Cap companies includes companies with market capitalization between \$2,552 million and \$10,106 million.
³ Low-Cap companies includes companies with market capitalization between \$549 million and \$2,552 million.

⁴ Micro-Cap companies includes companies with market capitalization less than \$549 million.
⁵ Decile 10 includes companies with market capitalization less than \$301 million.

⁶ From Table 2, Thomas M. Zepp, "Utility Stocks and the Size Effect Revisited," *The Quarterly Review of Economics and Finance*, 43 (2003), 578-582.

⁷ Computed as the weighted differences between the Micro-Cap risk premium and the indicated risk premiums for the sample water utilities as shown below. Excludes risk due to differences in beta.

	Market Cap.		Class	Size Premium	Difference to Decile 10	Weighted	
	(Millions)					Weight	Size Premium
1.	American States	\$ 1,537	Low-Cap	1.80%	3.98%	0.14285714	0.57%
2.	Aqua America	\$ 4,688	Mid-Cap	1.07%	4.71%	0.14285714	0.67%
3.	California Water	\$ 1,061	Low-Cap	1.80%	3.98%	0.14285714	0.57%
4.	Connecticut Water	\$ 407	Micro-Cap	3.74%	2.04%	0.14285714	0.29%
5.	Middlesex	\$ 384	Micro-Cap	3.74%	2.04%	0.14285714	0.29%
6.	SJW Corp.	\$ 637	Micro-Cap	1.80%	3.98%	0.14285714	0.57%
7.	York Water Company	\$ 274	Micro-Cap	3.74%	2.04%	0.14285714	0.29%
	Average			2.53%	Wghtd Size Prem. for Small Utilities		3.25%

⁸ Results of Comparative Risk Study. See work papers.